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## Why I am a Pictorial Photographer

**(Number Thirteen)**

**KARL BUTKA**

WHILE enjoying the articles which have appeared on this subject, I have often wondered what my answer would be if I were asked "Why I am a pictorial photographer". I drifted into pictorial photography, as do most others, presumably, through the medium of a pocket-kodak, hiring my developing and printing done, occasionally having an enlargement made, if I had, by accident, made a good picture. These occasional good pictures stimulated my interest, and I began doing my own darkroom-work. A little later a crude, home-made enlarger, which proved more or less successful, increased my interest.

I had always liked the out-of-doors. It was a pleasant place in which one breathed large quantities of fresh air which one needed after tedious confinement during business hours. My wife and I spent long, enjoyable Sundays with a luncheon and reading matter, sitting in the shade of a tree in park or woods. As I began to take a more serious interest in photography, the out-of-doors meant more to me—it was a vast source of material for *real* pictures. Things which had previously attracted my attention, with only slight interest, suddenly began to take on pattern and beauty of tone. It surprises one to find those qualities in the most commonplace, even sordid things of life. This at once makes photography a worth-while hobby; and who can say that this does not bring one into closer contact with his Creator?

Often it is one's privilege to aid others in seeing the beauty of their seemingly commonplace surroundings.

One spring morning, while in quest of something different, I happened on an old barn, on the sides of which was formed a beautiful pattern by the sunlight filtering through a fruit-tree in blossom.

The yard was strewn with tin-cans, an ash-pile, and all the other things which are often found in an unkempt, small-town yard. The owner was found making repairs under an old Ford, and, when asked permission to photograph the place, he replied with a pitying smile, "Go to it, if you think you can make a picture out of this place. I'm going to tear down the old barn and clean up the place next week". Setting up my camera in the most favorable spot and composing my picture, I asked him to take a look. After spending some time under the focusing-cloth he emerged with eyes and mouth wide open to verify what he had seen, and exclaimed, "I'll be darned! Let me call my wife to see!"

Indoor architectural and still-life compositions form a different but equally interesting line of study; portraiture still another line—in fact, I know of no other form of diversion which furnishes the variety of interest that is to be found in photography.

Making the exposure is no more interesting than the process of developing, printing, or enlarging, to which the element of uncertainty but adds zest. Often a "shot" from which you expect a really good picture proves to be a "flop", and vice versa.

I feel that the value of the national and international salons and the photographic magazine competitions cannot be overestimated. They put the amateur on his toes, competing, as he does, with the best workers; and no earnest worker can fail to improve his own methods by a careful study of the pictures selected for hanging and for reproduction. Never shall I forget

the thrill of encouragement I felt when I first had a picture hung.

Any one or all of the points I have covered may be said to be the reason "why I am a pictorial photographer".

[Perhaps Mr. Butka presents no greater plea for pictorial photography than when he emphasises his love of nature and that the camera opened his eyes to the beauty to be found even in the commonplace. In so many cases we have eyes, but we fail to use them intelligently, if at all. Sometimes we are like the man who said he could not see the beauty of the woodlands about him because of the trees. Those of us who have experienced the true thrill of earnest photographic effort, realize how much is lacking in the careless, happy-go-lucky effort of the average vacationist. It is for us to help our friends to know and to love the kind of photography that gives us a thrill spiritually, artistically and technically—that is photography at its best.—EDITOR.]

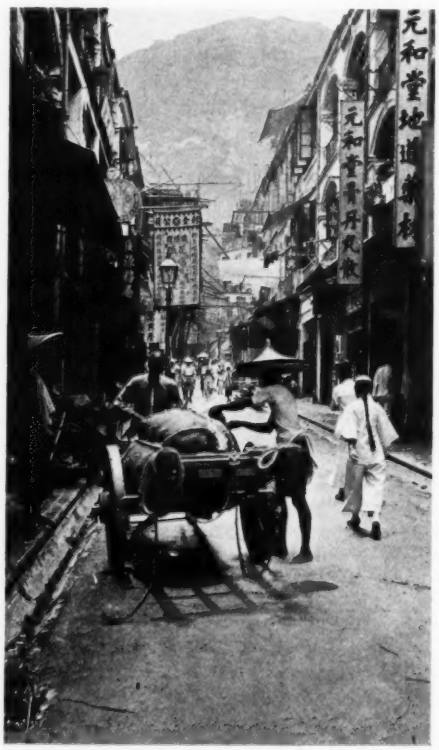
# Bringing Back a Bit of China

RAYMOND A. WOHLRABE

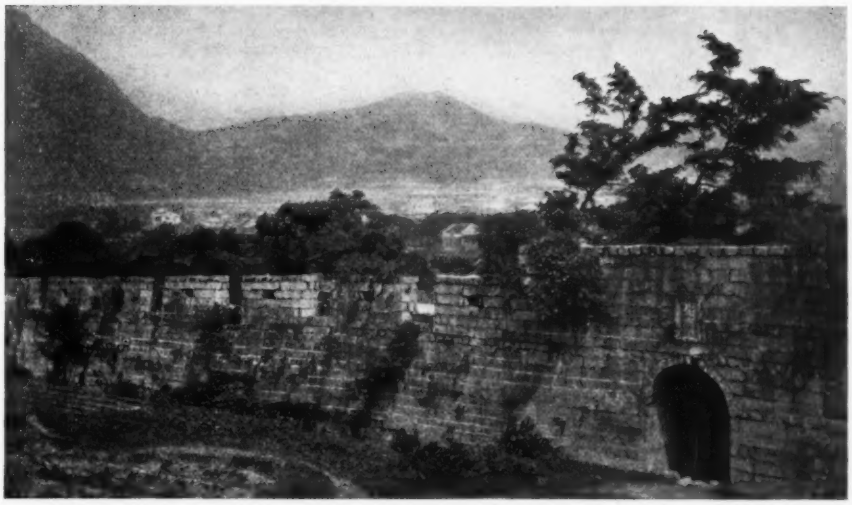
THE traveler bound for China has a new, mysterious world that seethes before him and his camera. Without a camera he encounters difficulties, and with one he encounters more. Without a camera he brings back a record of his own individual wanderings that is fogged by the details of each successive day—fogged until it shrivels into a vague blur on the pages of his memory. With a camera and negatives properly protected, there will be that precious picture-record of his own Cathay—the Cathay that he saw himself. And, in after years, what pleasure to possess a record such as that!

Suppose you visit China in the summer. Then a score of difficulties await you, to be stumbling-blocks to your success in getting the photographs you want to get. Let us confine ourselves to that strip of China bordering on the China and the Yellow Seas and take a few of the major difficulties one by one.

Climate will come first. Shanghai in summer swelters in the breath of heat that travels down the Yangtze and meets a moist one that moves inward from the sea. Hot, humid hours. Without a little care, how long would negatives last there? Your supply should consist of those sealed in tin containers and packed away in the clothing in your trunk, where temperature changes slowly. Films that have been exposed must be packed similarly, but do not need to be sealed again. Then, moving southward to Hongkong, humidity increases. Torrential tropic rains will blotch the days of perfect sizzling sunshine—rains with warm, wet vapor rising as they fall. Your films, if packed as has been mentioned, will be safe; but this climate of South China might bring forth a luxuriant crop of mold. Do not leave your camera or your camera-case packed away for any length of time without an occasional airing or wiping




STREET-SCENE, HONKONG
RAYMOND A. WOHLRABE



GATEWAY TO KOWLOON — RAYMOND A. WOHLRABE

with a cloth. If you do, mold may find a fertile field in the leather of it, and, finding it, there will be no need of coaxing for it to grow.

Travelers hear a lot about the effects of the air of the sea on films. Of course, those which are sealed are safe; those exposed and not developed are the ones we worry most about. The writer has carried exposed negatives, packed as described above, all the way from Manila to San Francisco, and not a one was harmed by either heat or "sea air". If they are left lying about the stateroom, they will be worthless in a very short time.

The sea and climate might antagonise the camerist; but when he has accustomed himself to these new conditions, then he meets the shyness of the Chinaman. Do not mistake me, though, in this. In the great ports of call, in Shanghai and in Hongkong, the coolie and the shopkeeper pay little attention when the camera-eye is on them. Often I have wished they possessed more of this characteristic, so common among the inhabitants of the smaller Chinese towns. Rickshaw coolies in particular possess such an inquisitiveness for cameras that they will creep up before the lens and draw close to see what happens when the shutter clicks. But in towns less frequented by the traveler, in those out-of-the-way nooks where one finds a swarm of picture-possibilities, he encounters that camera-shyness which is so discouraging. One must learn a trick to counteract this trait—a trick that very often proves to be successful.

Suppose that you are in a narrow street in one of those messes that is a little Chinese town, with the bizarre drapes of banners weighted with the clumsy spatter of Chinese letters cluttering it from above, and the mixture of pigs and chickens and children and filth choking it from below—a narrow passageway, a crevice among the hovels of a cramped-up humanity. An old Chinese woman is coming your way with water-buckets suspended from either end of a pole that rests upon her shoulder—or a coolie with that queer old wheelbarrow of Cathay. The very picture that you want! Then—don't look at them while you adjust you camera and prepare to snap. When you take your attention from your finder, quite likely you will find them gone. Often in the little village of Kowloon that sits among the hills behind the harbor of Hongkong have I aimed, and later found the picture ruined by the image of the subject dribbled in a blur across the film. And then I learned to play the game a little differently. Look up that narrow street to something far beyond and pretend you are very interested in it. The character you want will probably turn, too; and there is your chance to aim your camera accurately on him. Then, interesting yourself again in what lies in the distance, watch him from the corner of your eye and, steadying yourself, take a chance. No doubt you will get the picture that you hoped to get. At any rate, your chances for success are greater than they were before.

And how about exposure? In summer the

light in China is very strong, even though a haze might partly mask the sun. No doubt, exposure will not have to be as long as exposures you have been accustomed to at home for the same season of the year. All of the work of the author was done simply with an Eastman 3-A Kodak, and exposures were never more than one one-hundredth of a second, and the stop was never larger than U. S. 8. And in many cases negatives were sometimes obtained considerably over-exposed.

All these difficulties might be stumbling-blocks; but when they have been conquered, what a picture-record of your travels you possess! Those natives might have ducked or dodged, but you will have caught some unawares. Skinny Chinese women workers, with the weight of earrings made of jade that pull upon the lobes of their ears. Coolies. Porters. Money-changers. You will have glorious sunsets on the China Sea. Flocks of junks with tattered sail that slip out in early morning and crawl back to China's mountainous coast when twilight comes. From Hongkong you will look again into streets that are stairs up the mountain-side. And the mountain-side is tier upon tier of the stinking jumble of Chinese shops and shacks. Then more streets—those that are alleyways through the marts of the dealers in jade and birds and camphorwood. You will look again at sampans struggling through a maze of shipping in the harbor and the motley crowd that finds its way along the Bund. You will forget the humid hours and your worries over how well your films or plates would keep. Salt-air and over-exposure—you will forget them in your satisfaction of that bit of China you brought home to keep for yourself and friends.

# Photographing Rock-Garden Witchery

DAVID D. COOKE

IT is a far cry from the stately perennials of the old-fashioned garden to the modest, sometimes shrinking clumps of loveliness that make up the charm of the present-day rock-garden. Most of us all know and love the perennials that grace our borders and beds; but the little dwarfs of beauty from faraway mountain-sides of other climes are only beginning to be known, understood, and appreciated. It was not at all surprising, then, when my professional photographic friend was called upon to make negatives of some rare Alpine specimens that creep out of the rocks and crevices into the sunshine of our own garden, that he didn't seem to be able to photograph them satisfactorily.

As one who had dabbled with trays and developing-solutions since the Chicago World's Fair days, but who had through pressure of business wandered far from their influence in later years, I was amazed at the difficulties that crowded upon the heels of my friend's efforts. After repeated fruitless attempts to get this material for me, he gave up and I impulsively decided to do the job myself. I accordingly brought forth from its long resting place an old 5 x 7 Century View camera having a 22-inch bellows, removed its fifteen-year-old layers of dust, and boldly set out to capture silver images of the tiny blossoms which perennially carpet with color and beauty the hills, terraces, and ravines of our own rock-garden from season to season, again justifying the old truism of tender memory that "fools rush in, where angels fear to tread". With silly self-assurance, I provided myself with a supply of Orthonon plates, which I recalled had served me well when I had had time enough to devote to landscape-photography, purchased a new K-3 filter, and determined to accomplish what my young professional friend had not been able to do for me. (And in all fairness to that young man, I freely acknowledge more unmitigated failures than those which had discouraged him; for my first exposures laughed to scorn all the traditions of the art that I thought had been mastered.)

The almost countless colors and varieties of Alpine flowers bewitched my photographic skill and threw confusion into about everything I previously thought was correct, so far as light and exposure was concerned. I switched to panchromatic cut-film and the use of lighter filters, but still the discards piled up. After wasting much time and material, I concluded that rock-garden photographic success was too fickle for any tired business man to flirt with. It was a problem for intensive specialisation. It was only due to the persistent urging of Friend Wife, chief gardener, that induced me to persevere and to prolong the experiment until, at least, the handicaps of tricky colors and obstructed light were overcome and the much-needed

lantern-slides obtained. And it was this persistence that finally captured and transformed my *interest* into an intensive *hobby*.

This period of experimenting and disappointments covered at least two months of Sundays, counting stormy week-ends, holidays and all. It brought into play several types of cameras. From 5 x 7 Century View with its 8½-inch Goerz-Dagor convertible lens and K-3 and K-2 filters, I turned successively to a 3¼ x 4¼ Reflex, with filters and panchromatic film-packs, then to a 4 x 5 Speed Graphic with an 8-inch Cooke anastigmat. But, with few exceptions, movement of subjects and under-exposure continued their hoodoo, and blocked progress.

ROCK-GARDEN WITCHERY — DAVID D. COOKE

It was about this time that I stumbled upon a new (to me) and little known plate made in Belgium by the Gevaert Company. This, I was informed, required no color-filter. Color-correction advantages were standard equipment. Also, they offered a greater latitude of exposure than was found in anything yet tried. With all this to encourage me, I made another fresh start. I discarded the 5 x 7 camera as being too bulky to handle in confined spaces and pinned my faith upon the 4 x 5 Graphic. I switched to a smaller lens, remounting a 4-inch convertible Dagor, taken from a little-used vest-pocket camera, for use in the Graphic. With its 12-inch bellows extension, I figured that I could use the front element of the little Dagor with telephoto results, and I rejoiced to discover that this was true. "The best close-ups ever" began to be the rule. I was beginning to make headway. I was also happy to find that, by confining my efforts to the new Gevaert Filtered Ortho Anti-Halo plate I was able to obtain decently timed negatives in a fraction of the time required by orthochromatic plates and panchromatic film, with necessary filters for correction. Again, by devising a method of reflecting light upon my lowly subjects, I was able further to clip off on exposure time. At last I was beginning to get what I had labored so patiently to get in the way of true color-separation negatives.

The experiment has been interesting because there *is* interest in the difficulties each different subject presents. My efforts reawakened a long dormant interest in photography, even challenging me to delve into color-plates and methods of obtaining flowers in their natural colors. In conclusion, I might mention another advantage brought out by the experience. That is the amazing uniformity of results in tank-development. And when I mention this, it must be recalled that I had not used a plate-camera for over fifteen years and that I have done very

ICELAND POPPIES

SEMPERVIVIUM GLOBIFERUM

DAVID D. COOKE

little actual developing or printing during this time. I was forced to resort to the tank-method, to which I was a stranger, because the development of the new, extremely color-sensitive plates by the tray-method, even by the faintest safe-light, was out of the question. I simply had to trust to my old favorite pyro-soda developer; and I give it, and my new Dallon Tank, full credit for most of the success that has come to me. In this connection, there is an important and easy-to-forget responsibility—the light dusting of each plate *before* putting it into the tank-rack. This should be done if one is to obtain negatives free of pinhole blemishes.

Another word of caution is to give much more than a mere rinse to these plates. Five full minutes' gentle wash in running water, with plates still untouched in their rack, and in the dark, should be given. This is necessary in order to remove every atom used in these super color-sensitive plates. If this is not done *before* going into the fixing-bath, tiny red particles, unseen by the naked eye, will often appear in enlargements by projection and in lantern-slides when thrown on the screen. Beyond this, the washing and fixing and washing is a routine matter of refilling the tank with hypo, then draining and washing again with as little handling as possible . . . thus avoiding nicks and scratches.

My thought in reviewing this experience, which served to restore neglected lenses, cameras, and darkroom paraphernalia to old-time favor, is that it might encourage others, who have also grown tired of spasmodic snapshooting, to turn to those little things which individually and collectively give the rock-garden its interest and charm. There are, without exaggeration, literally thousands and thousands of distinct varieties in tiny rock-plants to challenge the serious photographic enthusiast. I confess a familiar acquaintance with perhaps not more than a hundred and fifty varieties photographed in my own garden this year. According to the "Missis", there are something like three thousand other little Alpines still out there waiting to be introduced to me through the groundglass of my camera. It is good hunting! I fear the golf club is going to be neglected again next year. For there is a witchery to Alpines that is hard to resist. They are as much of a lure as the short mashie "pitch" of a short hole and a fast green. For, in rock-garden photography games, as in golf, one learns something new with each shot. Therein lies its fascination and perpetual interest. There is always a new and delightful problem to solve in the photography of flowers. But I think the rock-garden gives most. It gives one a finer appreciation for the little things that go to make for happiness; not for *one*, but for *many*.

# The Despised "Record"

THERE is a tendency on the part of photographers of experience and those who have attained or aspire to the rank of "pictorialists" to look down upon and even to sneer at so-called "record" photographs. To some of us this seems a supercilious attitude, and far from being justified.

In the grand summary, all photographs are "records" of a beautiful landscape, a charming face, a notable incident; and if each image when perpetuated on the photographic paper brings back the emotions, the joy, the thrill of the place or scene so recorded, it is fulfilling its function, whether or not it measures up to the standards laid down by the canons of "art". Even the pictures of the family-cat and dog, the living-room in the old home, the commonplace scenes of the farm on which our boyhood days were spent, are fulfilling the function of photography in perpetuating what is surrounded with pleasant memories and in bringing back to the inner senses, as well as to the organs of vision, a feeling of pleasure and delight.

We would not be taken as underrating real artistry in photography. The study and application of the principles of balance, light and shade, and composition in general, have lifted our hobby from a mechanical process into a real art. But these principles may be, and should be, applied to our records of the commonplace, enhancing their value as reminders, and so be what our students of higher photography call "real pictures".

So let us not despise the "record" picture, for some of us cherish an occasional photograph of that type far above some others that might take a higher rank in the purely pictorial sense. That which grips the heart is often the greatest art.

E. C. HOWARD in *Highlights*.

# Petrocelli's Last One-man Show

JEAN PIPER

THE peer of all America's photographers, one internationally known as a master artist in pictorial photography, held his last one-man show in the Brooklyn Museum during March. His lovely bromoils and resinotipias occupied one entire gallery at the opening of the thirty-ninth annual exhibit of the department of photography of the Brooklyn Institute of Arts and Sciences.

The crowd that surged back and forth in the gallery, where the current exhibit was on, returned again and again and stood silent before the portrait of a comparatively young man. The portrait was hung among his works of art—a thoughtful, kindly, sensitive artist-face that in life had shunned the too-avid glare of the world lest it distract his pursuit of beauty. The throngs drank in each lovely detail of the exhibit, and in low tones paid their homage to the work and art of Joseph Petrocelli, long an executive member of the committee of photography at the Institute.

While stopping at the Lake Placid Club, Lake Placid, N.Y., Mr. Petrocelli died, December 30, 1928. His wife, Mrs. Mary C. Petrocelli, returned to Brooklyn. They will be remembered by Eagle tourists as capturing beauty with a camera on many of the Eagle Tours in the Hawaiian Islands, Alaska, Canada, and the United States. They had planned to leave on February 1 for Morocco.

In the center of his exhibit hung his "Pastoral Arabe", which has been hung fifty-four times in famous salons of the world. Last year it received the first prizes at the International Exhibit at Todmorden and at Madrid. It later received the Gold Medal from the New York Camera Club—an extremely difficult piece to produce, because of the effect of sun shining through dust raised by the feet of sheep driven down a narrow defile by their turbaned Arab shepherds. During the winter of 1928, Mr. Petrocelli held a one-man exhibit of seventy-six prints at the Brooklyn Institute, each print of which had been hung at one or more times in an international salon. He is the only member of the Brooklyn Institute of Photography who has ever been honored by a one-man exhibit by the Smithsonian Institution at Washington.

In the permanent exhibit of the Smithsonian Institution at Washington, D.C., hangs his "Faith", "Nocturne—Venice", and "Off the Beaten Path". In 1927 the Canadian National Exhibition purchased "Town Tattlers", a north African scene, and it is hung in the Toronto Art Gallery. The Paris Salon bought "Faith" when it was hardly dry from the brush. Every one of his pictures has its point of human interest, and appeals to the imagination. Because of this quality, his "Curb Market Exchange" made its way immediately to the office of the Stock Exchange brokers, and there attracted world-wide attention. In various salons of the world now hang one hundred and sixty-four of his photographs.

Although a member of organisations of pictorial photographers and other societies devoted to propagation of the arts, he was most deeply interested in the work of the department of photography of the Brooklyn Institute. Shortly before his death he arranged a salon test among the members of the photographic department and gave a prize of $100 for the winner.

What started with Mr. Petrocelli as a hobby, to get him outdoors and away from his work—which was pressing too heavily on him—developed in 1920 into a serious study of photography as an art. Soon his whole life began to move around this new-found art, and the pent-up artist-soul that had lain dormant, while he worked at international banking, later founding the successful firm of Petrocelli & Co., importers of Italian goods, blossomed, and attracted the whole world in its blooming. Mr. Petrocelli was born in a little town near Naples, Italy, and came to this country early in life.

Since his interest in photography increased to a passion, Mr. and Mrs. Petrocelli have traveled extensively in various parts of the world for the sole purpose of getting pictures. In 1923, Mr. Petrocelli visited Prof. Rudolpho Namias in Milan and there learned from the latter the famous resinopigmentipia process, being the first to introduce the beautiful process into America.

The Brooklyn Institute department is the oldest group of amateur photographers in the United States; and the excellence of Mr. Petrocelli's work still remains something toward which its members aspire.

*Brooklyn Daily Eagle.*

[We believe that our readers will agree with us that Jean Piper's sympathetic review of what is probably the last show of Joseph Petrocelli's work in pictorial photography is worth reading and filing away for reference. It is an intelligent outsider's appraisal of one who has earned his secure position in the international pictorial Hall of Fame.—EDITOR.]

CHIEF TWO-GUN WHITE CALF
GEORGE H. O'ROURKE
HONORABLE MENTION—PORTRAITS

# Stainless Amidol Print Developer

## Part II of "The Portraiture of Things"

MILTON M. BITTER

ALL of the prints illustrating my article, "The Portraiture of Things", were made on Azo F (glossy) No. 2, except Number 15 (Azo F, No. 1), Number 14 (P. M. C. No. 1), Number 10 (P. M. C. No. 1), and Number 16 (Azo F, No. 3).

In glossy-surface commercial printing for fine halftone cuts or salesmen's albums, I generally use Azo F, No. 2, with my type of negative (full exposure and full development); for projection P. M. C. bromide or Velour Black—a fast chloro-bromide. For coarse-screen half-tone cuts, harder grades of paper should be used, according to the coarseness of the screen.

Azo and P. M. C. have good emulsions, but the paper-stock might be better; therefore in squeegeeing, I use a roller instead of a flat squeegee.

I use Amidol-Johnsons exclusively in developing commercial prints, and in much work of other character. *So far as I know, no developer can possibly be compounded that will give a purer, richer black and a more detailed, brilliant print than the formula that follows,* which I have evolved after much experimenting.

This print developer is stainless, if used as directed. Blocked-out backgrounds will show a white that *is* white, with no stained edges, and the general tone of the print will be of the kind (on glossy papers) from which photo-engravers can get the best results.

Although stainless for prints, amidol will stain everything else it touches; and your white porcelain tray—oh, my! Don't wipe your amidol-wet hands on the kitchen towel or you will hear from—somebody.

As it contains no alkali, this developer is excellent for warm-weather use, and, having only one developing-agent, the results are just as brilliant when using it in water considerably below 65° Fahrenheit, *if the factor is watched.* In cold water the hydrochinone in a metol-hydrochinone developer loses its activity to a considerable degree and prints have less brilliancy. Very cold water, however, is never advisable for developing either negatives or prints, particularly negatives.

Amidol developer will not keep well in stock-solutions without the addition of special preservatives, which certainly do the prints no good. It is very quickly and easily mixed. Powders can be made up and kept ready in tightly corked wide-mouth bottles.

### Amidol Print Formula

| | |
|---|---|
| Water | 10 ounces |
| Sodium Sulphite (dry) | 160 grains |
| Amidol-Johnsons | 20 grains |
| 10% Pot. Brom. Solution | 80 minims |

Amidol made by any of the high-class chemical concerns would do as well, I suppose, but I have never used any but that made by Johnson & Sons, London.

In most amidol formulæ, it is recommended to add the bromide before the amidol. I don't.

For warmer tones, add more bromide or increase the exposure and use a shorter factor—or both.

For certain papers of intermediate exposure-speed between ordinary gaslight papers and bromides, 50 per cent. more bromide may be added without affecting the color and with the advantage of greater transparency in the darks.

For sepias, use minimum bromide (as given in formula), and develop very fully without increasing the exposure.

In commercial work for pure blacks, I print to develop Azo in a minimum time of 2½ minutes at 65 degrees Fahrenheit, factor 5½ to 6, according to snappiness of the negative; P. M. C. bromide, a minimum of 2 to 2½ minutes, factor 4½ to 5; Velour Black, or fast chloro-bromides in general, 2½ minutes, factor 7 to 8.

Tests will determine the factor of papers which you are accustomed to use. The factor must be particularly watched in developing a quantity of *bromides* in the same solution. Be liberal with your solution. Don't overwork it. Develop fully to get richest color, bearing in mind that prints generally dry slightly darker.

In making prints having considerable detail in the highlights, you may be misled into printing too dark. Highlight detail, with this developer, comes up considerably in drying. Working under a Wratten Safelight, Series OO for gaslight papers or Series O for bromides and chloro-bromides, the print will appear to be fully developed considerably before the expiration of the development time; *the richness of color comes in the last half minute or so.* This is a build-up developer; the image does not flash as with short-time developers.

*To get all possible brilliancy and detail into*

*the print, rock the tray gently and almost continuously.* Warm with your breath the parts you wish to build up, and wipe off with clean water and a tuft of cotton the parts you wish to retard, but don't keep the print exposed to air too long or stains will develop. Hold your fingers *under* the paper when lifting it in and out of the developer for control. When control is necessary, there may be some slight, scarcely perceptible, inequality of color.

If your negative is too contrasty for the paper you happen to have on hand, soak the print in water for half a minute or more and *don't* rock the developer much. Otherwise the soaking of a print before development, in my opinion, is not advisable except in the case of rough paper, linen finishes, etc., when but the briefest immersion in water is sufficient, in order to permit the developer to flow evenly and quickly over the print. Why, except for very special reasons, should a print be water-logged before development? It alters the factor and certainly leads to flatness. Try it and see.

### Check Bath for Prints

Drain the developer from the print four or five seconds and immerse in the following check-bath for about ten seconds and keep it moving:

| | |
|---|---|
| Water | 11 ounces |
| 28% Acetic Acid | 4 drams |

(Twenty-eight per cent. solution can be made from Glacial Acetic Acid by diluting three parts of Glacial with eight parts of water.)

### Fixing and Hardening Bath

Drain and transfer from the check-bath to the following fixing-bath, face down, about eight or nine minutes. Move print about for the first few seconds, and an occasional lifting and separation of the prints is advisable when several are in the tray.

| | |
|---|---|
| Water | 10 ounces |
| Hyposulphite of Soda | 2 ounces |
| Sodium Bisulphite | 150 grains |

The hypo should be thoroughly dissolved before slowly adding the bisulphite. In summer more sodium bisulphite may be used, but if your prints curl badly after drying you have probably hardened them too much. I have used this fixing-bath for prints for years and *I never have any frilling or blisters.* Developer, check-bath, and fixing-bath should all be about the same temperature and *the wash-water certainly should not be warmer.* Wash thoroughly; but prolonged washing is likely to lessen the richness of the color, particularly in the summer.

### Factorial Development

To beginners not familiar with the factorial system of print-development (I do not advise it for negatives), I would say that it simply means the multiplying of the time of the first appearance of the image by the factor of the developer. For instance, if the image in a bromide print comes up in 30 seconds, and the factor of the developer is 5 (as with this formula), the full time of development will be 2½ minutes. In printing, be sure to note for "first appearance" the same part of the image that was taken for "first appearance" in making the preliminary test.

### Drying

Semi-gloss, linen, silk, and the luster papers should be laid out, face up, on clean white blotters, specially made for photographers' use, and the water *gently* wiped off with a large wad of absorbent cotton. They should be allowed to dry ten or fifteen minutes and then should be placed, face down, in blotter rolls. I use the Eastman Kodak Co. blotter roll, which is better by far than drying between flat blotters. Prints dried in these rolls will require no after-treatment, such as placing under weight, to make them lie flat. These rolls are made of two strips of blotting paper, one of which is faced with thin cloth.

### Squeegeeing

Glossy surface prints to which it is desired to give a smooth, high gloss should be taken from the wash-water, drained, and laid face down on specially prepared sheets of smooth glass or japanned, highly polished squeegee tins, and the excess water should be pressed out with a roller or flat squeegee rubber. *All water must be removed,* or water blisters will form. I use Peep-o-Day Squeegee Paste for polishing my tins. The following cleaning and polishing formula may be used either for glass or tins:

| | |
|---|---|
| Beeswax | 20 grains |
| Turpentine | 1 ounce |
| Benzole | 1 ounce |

As Peep-o-Day or other similar prepared squeegee polish is so cheaply and universally obtainable, it is a waste of time to prepare any. After rubbing the paste *on*, try to rub it *off*, finishing with very light rubbing. The final cloth should be soft and lintless. Prints should fall off *when well dried.* If they do not, gently lift a corner and pull them off slowly.

### Projection Printing

It is frequently stated that, in enlarging, one can get much better gradations on chloride or

THE RADEY BABY
MILTON M. BITTER

chloro-bromide papers than on bromides. I can not notice it with this Amidol formula, nor do I notice that the color is better than on a good bromide, *if one develops it long enough to get the color*. The longer exposure on the slower projection papers reflects more light into the room from the surface of the printing-paper, particularly when of large size, and tends to fog the highlights.

Projection lanterns should be painted flat black. I know of one manufacturer, at least, who makes a projector with a polished ash or maple front board. It's quite pretty. I could almost use it for a shaving mirror.

For projection-focusing, I have ruled a piece of groundglass with fine India-ink lines about 1/16 of an inch apart, both crosswise and lengthwise. After the usual focusing, I substitute the ruled groundglass (lines down) for the negative, to see if I can better the focus, and then reinsert the negative.

Very artistic, soft effects, without any saintly halos or pussy-willow garlands, can be obtained by projecting with an Artograph Diffusing Screen over the lens. A paper one degree harder than normal may be used with this screen, if it is desired to retain the original rotundity of the image, as in portraiture; the softness will still be there. This screen increases exposure somewhat, according to the magnification, and tends to lessen contrast. I understand that a piece of chiffon fastened over the lens with a rubber-band gives pleasing diffusion. I have never tried it; but I mention it here for what it may be worth to the reader.

"The Radey Baby" print was made by projection through the Artograph Diffusing Screen onto Satrap Bromide, an imported, delicate buff paper of the mezzotint type, having a slightly rough surface. My regular Amidol-Johnsons developer was used; but with double the quantity of bromide.

# Suitable Free-Lance Press Equipment

KARL A. BARLEBEN, JR., A.R.P.S.

THERE is a certain fascination in submitting photographs to newspapers and magazines—a fascination that is enjoyed by many camera-owners. There is a large field for the occasional worker as well as the man who devotes his entire time to free-lance work. Recruits are continually entering the field. Some remain; but the majority soon discover that their talents do not run in that direction, and hence drift into other channels. Some hit a fair average of accepted photographs, and others do so well at it that they make an excellent living by simply doing this work as a free-lance. It all depends upon the individual, and, to a lesser degree, the equipment used—which brings us to the principal object of this article.

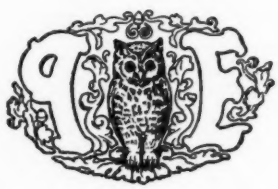
It is a well-known fact that a master carpenter, let us say, cannot perform his work properly with poor tools. Give him the right sort of tools for the particular work he has to do, and he will be without a peer. This holds true in every profession—even photography. There is not one camera that is suitable for every type of work. Instead, every man must decide what his work is apt to include and purchase a camera that will suit his purposes best. In press-work, we have certain definite requirements. We must, then, select a camera that will conform with these as far as possible. The most essential requirements needed in a camera used for press-work are compactness, speedy operation without loss of time, swift shutter-speeds, and a fast lens. There are others, of course, but these few will serve as an outline.

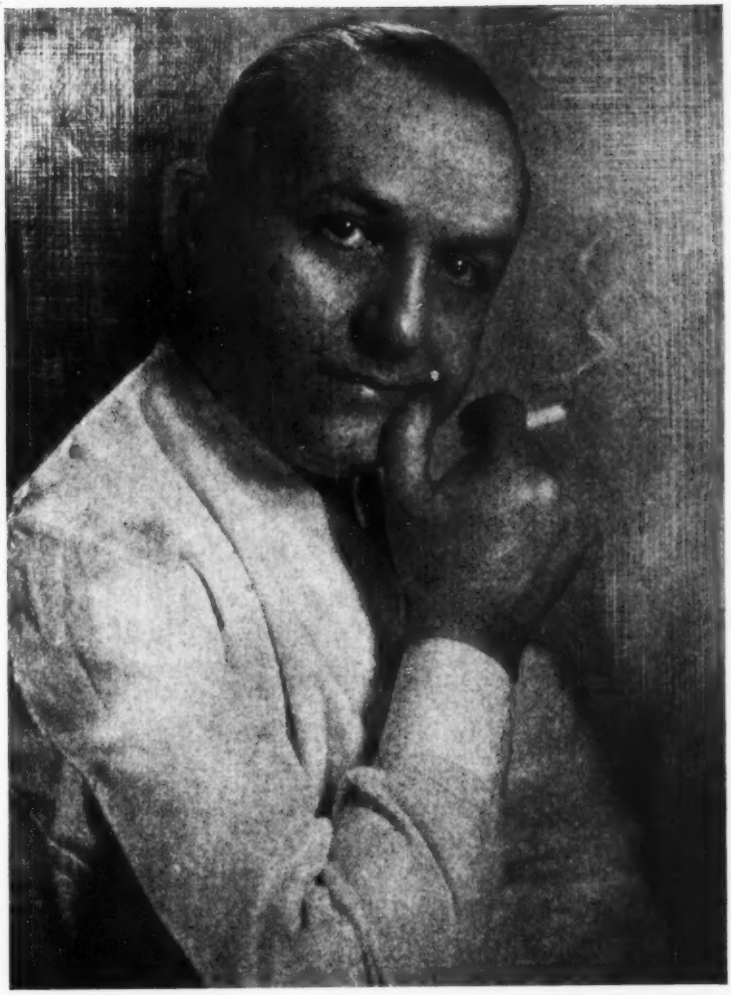
Before going any further, let it be understood that any camera built can be used for press-photography; but should we use a view-camera, for example, we would be hopelessly outclassed by our rivals equipped with more suitable cameras. First of all, the view-camera demands a tripod. It must be focused. After we have the image sharp on the groundglass, we must close the lens, insert the plateholder, and, finally, make the exposure. The manipulations all take time—valuable time. Such a camera would be a hinderance in the majority of cases, and, while excellent photographs can be made with a view-camera, its slowness in operation makes it undesirable for our class of work. It is just as easy to work with proper equipment, and with it the photographer need not overcome the many little obstacles that improper equipment places in his path. Practically all press-work demands working under pressure and speed. Many times speed alone will get the picture. Why not have a camera that will assist instead of hinder the free-lance? Let us for a moment consider the

Graflex or reflex type of camera in conjunction with press-work. Here we have a camera that is rather bulky to carry around, yet it possesses many valuable features: for example, the focal-plane shutter, working as high as one-thousandth of a second; the reflecting mirror, upon which we are able to see our subject right side up till the moment of exposure—a very valuable asset—and the speed-lens which usually accompanies this type of camera, allowing exposures to be made under adverse conditions. With the exception of weight and bulk, this camera is ideally suited to news-work, consequently we find the majority of newspaper men in this country using them. Its size, however, is a serious drawback, at times, and we find that many of "the boys" use folding cameras. Right now, the Carl Zeiss Orix camera is very popular, especially in New York City. It is small and compact, and is equipped with an F/4.5 lens. The speed Graphic type of camera is also used widely. It, having the focal-plane shutter, is very desirable, especially when swiftly moving objects are the center of attention. These three types of cameras, then, constitute what the average press-photographer thinks a press-camera should be. The Graflex still holds sway, with the folding cameras running a close second. It is interesting to note that staff-photographers seem to follow styles in this respect. In Boston, Mass., everyone carries around a Graflex, whether he needs it or not. In New York City the majority of staff men adhere to the folding camera, the Orix in particular. Graflex cameras are used only where absolutely necessary. And so on, down the list. Various localities favor different cameras for press-work.

The free-lance must pay some attention to the size of plate or film he should use. What is recognised as press size plate is the 4 x 5. It is excellent in proportion, and makes an ideal size for enlargement. It is not too big to make the camera extra large or bulky, and yet contact prints can be used nicely if necessary. Smaller-sized contact prints are usually frowned upon by the press, and it is not always possible to "crack off" enlargements in time for going to press. The Orix camera makes a picture 4 x 6, which, while not exactly conforming to the standards, is near enough to ward off criticism. All in all, the 4 x 5 size is most practical in the majority of cases. The free-lance photographer, who usually has more time to make his pictures, need not conform strictly to the precedents of press-photography; yet, if he is wise, he will come quite near—for his own good, and if he wants to be successful. It is entirely possible to use the tiny cameras, such as the Leica, but enlargements are necessary in all cases. If the type of picture does not demand speed in getting to the editor's office, this type of camera can be very useful. Folding cameras of the Kodak, Ica, and Voigtländer type are entirely satisfactory —within certain limits, of course. It follows that the more suited the camera is to the work, the better the work can be. Any camera will suffice to begin with; but as the free-lance goes along, he will discover the limits of his equipment. Sooner or later the proper type of outfit must be obtained. After all, it is not the type, make, or size of the camera that counts; it is what you produce with it that brings in the cheques.

The professional staff press men have chosen a few outstanding types and models of cameras that in their estimation are as well suited to their work as any other camera. Their choice came from long experience in the field; therefore we can safely take their advice and profit by it. If they deem such-and-such a camera to be suitable for press-work, it must be so. The point is, the beginner as well as the established free-lance should select his camera with an eye to its adaptabilities for press-photography. Even the kingly Graflex has its drawbacks, as have all the other types. But we weigh the advantages against the disadvantages and draw our conclusions—then purchase a camera that has most of the good points. If you can make pictures with a view-camera faster than you can with a Graflex, get a view-camera. If you can manipulate a Brownie better, get a Brownie. You certainly will be a wonder if you can, however. Get the results, get them right, get them quickly. That is all that really counts.





SELF-PORTRAIT
DR. MAX THOREK, A.R.P.S.
HONORABLE MENTION—PORTRAITS

IN THE CONSERVATORY — BERNARD FEDER

# Photography at Roosevelt High School

BERNARD FEDER

BEFORE coming to Roosevelt High School, I had repeatedly heard of the fine work the Photography Department was doing under the guidance of Mr. C. E. Sparks, and I determined to enroll in the classes as soon as I entered high school.

At the start of the first semester in high school, I was a member of the beginners' class and was fortunate enough to make some fairly good pictures. I am quite sure this unexpected success is due to the firm foundation which we students receive in this course.

About half the term is given over to studying the history and theory of photography. Optics, light, and chemistry are all thrashed out as completely as is possible in so short a time. The artistic value of photography is considered very seriously, the student being taught that art must enter into every composition.

The remainder of the term is taken up with practical work, making pictures, developing, and printing. The student makes his own pictures, develops, and then prints them. The prints are handed to the instructor who discusses, criticises, and grades them. In this way, all the students profit by the mistakes of each individual, and everyone shows marked improvement as successive sets are made during the course.

Mr. Sparks, our instructor, has made the course so interesting and complete that all who take it, if they do not become full-fledged photographers, are, at least, capable of producing pictures that are quite outstanding. I think that there are a large number of photographs made by my classmates that are as good, if not better in some respects, than those which have been submitted.

The merits of photography, whether as a vocation or as a hobby, cannot very easily be surpassed by any other subject offered in the public schools. Perhaps this explains the large attendance and tremendous interest in these courses at Roosevelt High School. At any rate, it is my belief that photography will, as it has done in the past, continue to grow more outstandingly important as civilisation progresses.

[This little article, with its illustrations, was prepared by one of the boys in the Beginners' Class in Photography at the Roosevelt High School, Los Angeles, Calif. Our purpose in featuring the young author and his work is to encourage other young readers of PHOTO-ERA MAGAZINE to let us know of their photographic experiences and ideas. We should all remember that the high school boy or girl of today very soon becomes the salon exhibitor or professional photographer of tomorrow.—EDITOR.]

# New Photographic Method to Make Shaded Maps

*United States Department of Agriculture*

TO speed up the work and obviate certain difficulties in making shaded maps, J. H. Stevenson, in charge of the illustrating work of the Office of Information, United States Department of Agriculture, has developed a photographic method which, in addition to saving time, produces a finished product much better than that turned out by the hand or machine-drafting method. Although this photo-shading process was devised to make maps for the publications of the Department of Agriculture, Mr. Stevenson says that it may be profitably used in any large drafting establishment. The new method, he says, makes it possible to complete a job in two hours which formerly required two days.

The method consists essentially in double printing various hachures and stipples on photographic paper. To put the process in operation, it is first necessary to make a standard set of hachures and stipples, which are drawn on perfectly flat and smooth drawing paper several times larger than the size in which they are to be reproduced. Great care should be taken in preparing these sheets, says Mr. Stevenson, as the degree of perfection of the work in all subsequent jobs depends on the accuracy with which they are drawn. Negatives and positives are then made from the sheets upon films—not glass—and every effort is made to get them as clear as possible and with opaque backgrounds.

FIGURE 1 CUTTING THE MASK

FIGURE 2 PRINTING THE MAP

These negatives and positives, if carefully handled, will last indefinitely.

For securing exact register, two holes are punched in the upper edge of the negatives, masks, and photo-print paper. A glass retouching-frame is used for cutting the masks, and two pins along the upper edge, which exactly fit the punch holes, keep the negatives in proper position. The photo-printing frame is also provided with similar pins.

Mr. Stevenson cites an example to illustrate the method: "Suppose we have drawn a map upon which several hachures are required. First a negative is made of the map. The negative is punched and placed on the retouching frame with the pins in the punch holes. A piece of thin, oiled post-office paper is cut the same size as the negative, and is punched and placed over the negative on the retouching-frame to serve as a mask. All areas to receive the same hachures are cut from the mask. A separate mask must be cut for each hachure to be used. A sheet of photo-printing paper is punched and placed with the negative of the map over the pins in the printing-frame and the first exposure is made. The negative of the map is removed.

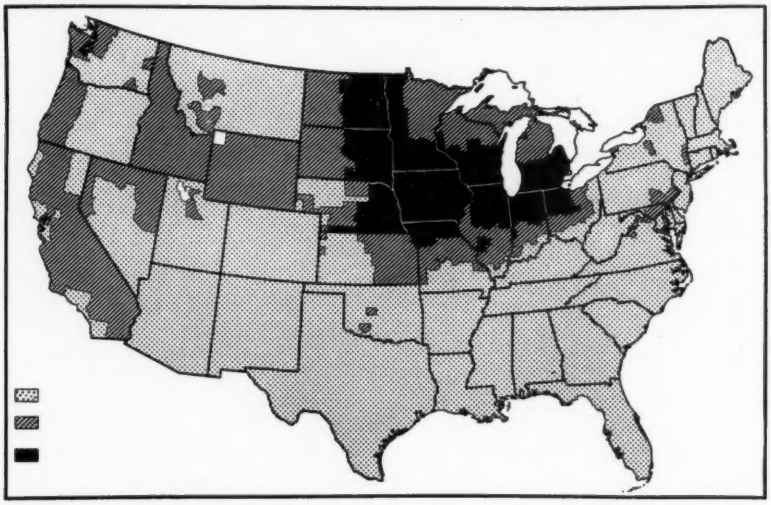


FIGURE 3 THE COMPLETED MAP J. H. STEVENSON

A mask with its particular hachure film is placed in the printing-frame and the second exposure made. A similar exposure will be required for each hachure desired. When all the exposures have been made, the photo-print is developed and the result when properly exposed should be about as perfect as it is possible to make it."

Ordinarily, says Mr. Stevenson, the shading of a map by hand, when several different hachures are required, is a very slow and tedious process which must be done with the greatest of care, for any slight variation in the spacing or width of line becomes very noticeable in the finished work and is accentuated when reduced for publication.

Several ruling machines are on the market and are in use in practically all drafting rooms; but with these machines each line must be ruled one at a time, and the multitude of lines and stipples that appear on most shaded maps of any size give some idea of the magnitude of the job. "Our experience with machines in which printer's ink is transferred from raised rulings or stipplings on gelatin-sheets to paper", says Mr. Stevenson, "has not been very satisfactory. Great difficulty is found in getting the ink to stick to photographic paper, drawing paper, or tracing cloth". In this respect he has been successful only with heavily enameled board, which unfortunately is not suited for the particular kind of work done in his office. An additional difficulty with the old method is found in masking out finished parts without smearing the work. Great skill is required to lay an even shade with machines of this type and any slip on the operator's part may ruin the whole job.

## A Doctor's Advice

"BE determined to maintain your own health at the maximum of fitness," said Sir Thomas Barlow, the great English physician, in an address to British medical students which is worth passing on to our readers, whether they be studying medicine or not.

"Keep Saturday afternoons for athletics and country walks. Burn very little midnight oil. Avoid scratch meals and the doctor's bad habits of bolting food. A cigarette after lunch and dinner has its place, but don't smoke while you are working. Take the minimum of alcohol, and only with food, and, best of all, try experiments on yourself of doing without.

"Save a little time every day for general reading—the Bible first of all, then Shakespeare, and the great English essayists, poets, and historians, Bacon and Addison, Boswell's 'Johnson'. Don't forget Montaigne and Erasmus' 'Colloquies', and Balzac's 'Médecin de Campagne', the most beautiful picture of a country doctor's life. Godlee's 'Life of Lister', one of the best biographies in the English language, will make a special appeal to University College Hospital men. Good music and good drama have their occasional rightful place.

"You must cultivate good friends."—*Contact.*

# Practical Photographic Hints

DALE R. VAN HORN

## Printing Photographs on Cloth

THE process of printing beautiful pictures on various kinds of cloth—for pillows, cushions, or novelty wall-decorations—is neither difficult nor expensive, giving results that, at first, seem rather marvelous. You can turn these out in rapid order. Perhaps you will make a few for your own use; but sooner or later, if you have a mind to make some spare-time money, you will make them for sale to friends and neighbors. You can either solicit business by writing to a list of likely prospects, or arrange for a display in one of the store-windows. In exchange for this free advertising, you can pay a suitable percentage to the owner of the store.

The pictures themselves differ from regular photographs in that they appear in blue and white, rather than in black and white. In short, these pictures will be blue-prints made by the same process, though simplified, that engineers use to make blue-prints of their projects. However, country-scenes, or negatives which have a pictorial composition of trees, sky, water, and mountains or hills, will look even better in blue and white than in the usual color-tones of ordinary prints.

The cloth to be used should be of fine, even weave, but its quality and kind is not important. For small pictures, as a rule, the weave should be finer than where you are using enlargements for pillow-tops. Soak this cloth in warm water, then rub it briskly to remove all traces of any salts which may have been left in the fabric by its manufacture. Next, hang it up to dry, taking care that no wrinkles are noticeable. You can better this by ironing it out.

Then dip the cloth in a mixture of iron-ammonium citrate and potassium ferri-cyanide. These materials can be obtained at the drug-store. This work should be done in a darkroom. Remove the cloth after it has been saturated with the liquid, drain off as much of the solution as possible, then hang up to dry *in the dark*.

When thoroughly dry, stretch a piece of the right size over a cardboard, and fasten down the edges on the back side with paste. This draws the cloth tight and smooth. The cardboard should be just large enough to fit into your printing-frame. Choose the negative you want, and assemble in the usual way, then expose to daylight. This process calls for a much longer duration of exposure than ordinary printing. Roughly, it will take three times as long; but you can watch the progress of the printing by opening one-half of the frame now and then to inspect the cloth. The image should be well pronounced, as the developing will remove some of the contrast. This is done by immersing the print in warm water until the image is well developed. Next, rinse in several other waters,

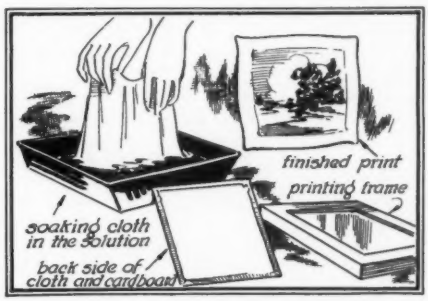



FIGURE 1 DALE R. VAN HORN

or until all traces of coloring has been removed from the cloth. Then hang it up to dry, and later iron with a *warm* iron.

A little experimentation will give you the right length of exposure and the right combination of the chemicals to use. Such a picture can be framed in the usual way, and the cloth pattern, instead of plain, smooth paper, will give it a decidedly novel appearance. In choosing negatives for this work, those showing strong contrast are best, especially if they are devoid of much fine detail.

## Making Prints from Wet Negatives

Now and then, it is desirable to make at once a print of a picture just made. Pictures of unusual scenes, such as wrecks and special events, often have their chief value dependent upon the quickness with which they can be produced after the event. News-photographers, whose work calls for prints very shortly after a happening, often resort to the following plan.

As soon as the negative has been developed, it is washed very thoroughly in water. A piece of the printing-paper is then soaked in water—this, of course, being done with the aid of a

safe light. The paper is then placed against the negative in the usual way and both are run through a wringer to "cement" them securely together. The printing is done without a frame. After the exposure, both print and negative are placed in clean water and allowed to soak for a minute, so that the two will separate without damaging either. Then the print is developed in the usual way.

You can also make dry prints from wet negatives by cleaning a sheet of celluloid—washing off the emulsion in warm water will do it—then putting this transparent sheet between the dry paper and the wet negative. However, no air-bubbles should lie between the sheets, as they will show on the print. When the print has been made, return the negative to the wash-water for a few moments, then hang up to dry.

### Drying Plate-Negatives

Glass-negatives are more difficult to dry properly than are films. They must be so placed that no portion of either side comes in contact with anything, and they are too heavy to hang up with clips such as are used with films.

The drying-racks with corrugated trough sides are ideal; but the prices usually run from $1 up. The only objection to the making of such a trough at home is in obtaining the corrugated sides; but, if the rack is made like the one shown, this difficulty will be overcome. The device consists of a small trough in which pieces of corrugated cardboard are placed. These can be changed as often as desired.

Your will need two pieces, 5 by 12 inches, for the sides, and two pieces 3 by 7 inches for the ends. The material should not be more than

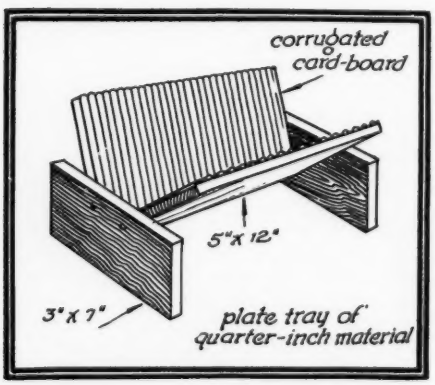



FIGURE 2 DALE R. VAN HORN

FIGURE 3 DALE R. VAN HORN

½-inch thick. Nail the four parts together, so that the trough-sides form an exact right-angle trough.

Get the corrugated cardboard—this can be obtained from a packing-case, with one side peeled off, exposing the corrugations—and cut two pieces to fit into the trough as shown. This trough will hold from 10 to 20 plates, regardless of size. Even though the cardboard becomes wet during use, it will dry out soon and the same two pieces can be used a long time. However, while you are at it, you should make up at least three sets of the pieces, laying the other pairs away until needed.

### Photographing Athletes

There are certain things to watch when getting pictures of action, particularly those of athletes. A picture of a fast-moving train can be snapped whenever convenient. The steam and smoke shooting to the rear is constant, and one moment is no better than another. This is usually true of any motion on wheels.

However, when you make pictures of the actions of animals or people, an inopportune moment for snapping the picture may spoil the result. The picture of a person diving from a board is more effective an instant after the swimmer starts downward; then the impression is that he has dived from a greater height.

Pictures of rowers in a boat should be made either at the beginning or the end of a stroke; if taken mid-way between, the positions are nearly upright and not so much unlike the pose of a person calmly sitting in a chair.

The best moment for a football picture is, of course, when a player is being tackled or making a run. Mere piles of human beings are not thrilling. A picture of a pitcher in action is most effective when made at the end of the delivery. However, the batter should be snapped when he poses for the swing. A picture made of a batter after hitting the ball is usually not so effective, for his energy has been spent; and this often results in an awkward position. To make a picture of a broad or running jumper, get the snapshot, if possible, when the jump is half completed. A picture of a bicyclist should be made when the pedals are just past an up-and-down position. If both feet are on the level, it looks as though the rider were coasting.

Be sure to get your subject all in the field of view, if possible; then endeavor to catch the instant when the pose is right. Action pictures must always be made quickly—at 1/50 or less of a second.

### Dust and Pictures

What makes the small black dots on some pictures? Dust! Dust will mar pictures by its presence either upon the film or upon the printing-paper. It should be watched for at all times. Even though the plates or films are clean when you put them into the camera, dust is apt to work over the surface, especially if the machine is carried in a car on dusty roads. Cameras are made tight, of course, but dust gets inside if you aren't careful.

To make sure that dust cannot get to the film or plate, first clean the lens. This means unscrewing the lens from the instrument, then removing the parts by further unscrewing of the parts from the barrel. To prevent damaging the glass by scratching, use only a fine camel-hair brush, laying the parts out upon a piece of clean paper.

Mix a solution of water, rubbing alcohol and a few drops of nitric acid in a dish. Bathe the parts by dipping a soft wad of cotton batting in it, then polish with a bit of chamois and let dry.

For cleaning the bellows and other parts of the camera, use a stiffer brush and get at all the crevices in the bellows. This can best be done by extending them. Now re-assemble the parts, and, before putting on the back, tap the sides of the bellows with the opening on the lower side.

Dust can be removed from plates before they are put in, by use of the camel-hair brush. This should also be passed over the printing-paper unless recently removed from a new box.

### Repairing Films (Negatives)

Sometimes a negative is damaged beyond further use without suitable repair. Most negatives are thrown away when they are cracked or scratched. But this need not be done.

In the following manner, you can print pictures from a glass-negative which has been cracked, so that the crack will not show. Rub some glycerine into the crack from the back by bending the two pieces of glass slightly apart. Be sure not to break the coating on the other side.

Work the pieces carefully back and forth so that the crack will be completely filled with the glycerine. Then coat the back entirely with glycerine and lay on another glass of the same size, washed clean. Wipe off any surplus glycerine from the edges and make your print in the usual way. It is, of course, necessary that no air-bubbles be left between the two glasses, as these would show.

The best way to remove "pinholes" and scratches from films or glass-negatives is with India ink and a small sable brush. It pays to test brushes before purchase by wetting. If the water doesn't cause the hairs to converge directly to a fine point, discard it for a better one.

Dilute the ink as necessary with warm water, and practice first on a worthless negative. Test the density by occasionally holding up to the light. Pictures printed from damaged negatives can also be retouched in this fashion, using ink of the proper density to equal the shade it is to match on the print.

### A Camera Record

This compact camera record will hold more than five hundred pictures—probably more than you will make in several years. Its big value, however, lies in the fact that each picture is mounted upon a stiff cardboard. Without this protection, the loose prints often get broken beyond repair.

The cabinet itself consists of a box made of quarter-inch material. Its outside measurements are: height over all, seven inches; width, six and one-half inches; length, optional. However, sixteen inches in length will probably be large enough for your needs. You can first pile up a number of sheets of the cardboard you are to use for the backing, measure the thickness, count the number of sheets, then count the pictures to be filed. In this way you can tell how long the case should be.

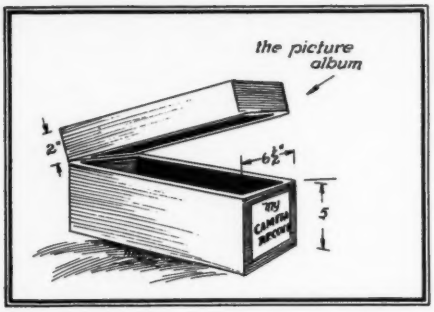



FIGURE 4 DALE R. VAN HORN

Although the corners should be dovetailed and glued, ordinary nailing and gluing will suffice. Nail on the top and bottom, then mark a line around the two sides and ends, two inches from the top, and saw the box in two. Attach this cover to the box with two hinges placed at the back. Mount a piece of white paper on the front, carefully letter "My Camera Record" on it, then varnish the whole box.

For the contents, you will need two sizes of cards. The dividers are one inch higher than the picture-mountings. They are five inches high and six inches wide. The other cards are four inches high and six inches long. The dividers have tabs which are cut along the top for the subjects. Usually four or five dividers will be enough. To make more easy reading, the tabs should not occur in the same position on two cards.

Your pictures are pasted upon the smaller cards, and then are grouped within the record according to the proper section. For instance, all the pictures you have made while camping will go in the "Camping" section. Usually, unless your camera is very large, there will be enough room on the margin to make other notations referring particularly to the picture. The interior arrangement of the record is shown in figure 5. In choosing the cardboard, be sure that it is well made and durable, yet thin.

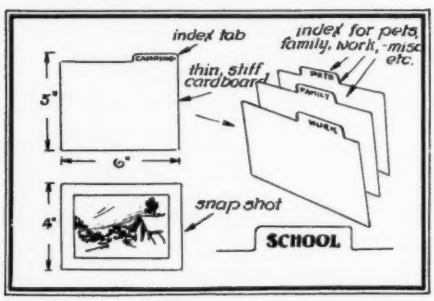



FIGURE 5 DALE R. VAN HORN

## Getting Black Backgrounds

One commonly supposes that a perfectly black cloth makes the ideal background when photographing people or other subjects which are to be emphasised by the absence of anything behind. The black cloth is good under most circumstances; yet close inspection of the finished plate usually discloses small wrinkles which catch highlights.

FIGURE 6 DALE R. VAN HORN

A superior background, which almost invariably gives a clean glass or gelatine on the negative, is produced by a doorway leading to a room without windows, or whose windows or doors have been completely covered with opaque material. The blackness of this background is complete; and, even for portraits, especially where you seek a strong contrast, the method is hard to beat.

In getting the proper contrast and preventing the dark side of the subject from emerging with the background, place one light so that it just

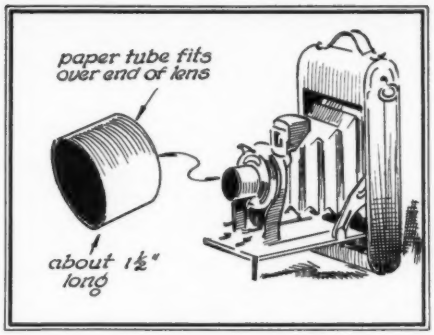



FIGURE 7 DALE R. VAN HORN

barely lights the edges of the profile. The use of two strong lights with reflectors and controllable rays is a big advantage in experimental portrait-photography.

### Making Snow-Pictures

A picture which was made under what you thought to be ideal conditions, with the landscape covered with snow, may turn out to be generally fogged. You may know that your camera-bellows and box are tight, and that the exposure was made away from the lens. What, then, caused the trouble?

One explanation—and it occurs often—is that the fogging resulted from the tiny reflections of the sun's rays from the millions of snow-particles. One, or a dozen, or a hundred would do no harm; but snow-covered ground on a bright day is so bright that light is apt to get in by reflection on the glass of the lens, if not by reflection on some metal part of the lens-barrel or shutter.

You can usually overcome this difficulty by means of a simple sunshade. Make a tube, of the same diameter as the lens, from paper with paste on one side. This, when rolled into a tube, will give a strong composition. Cut it to 1½ inches in length and slip over the rim of the lens. Then open up the back and focus the view on the groundglass. If all of the field is not clearly and evenly lighted, you must remove some more of the tube.

Coat the inside with black, dull paint, and use this when making winter-pictures of snow. You will find, too, that you can "shoot" almost into the sun with this, and still get pictures. Photographs in which shadows point toward the camera, instead of away or at an angle, are always effective—mainly because they are so seldom attempted.

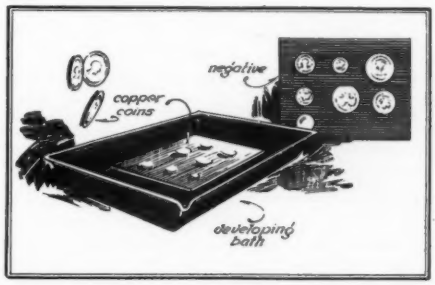



FIGURE 8 DALE R. VAN HORN

### Photographing Without Light

This method has particular value for the coin-collector; for he can reproduce perfect images of his coins easily. After the plate has been exposed, prints can be made in the usual way—as many as are wanted—thus enabling him to expedite sales to customers some distance away without risking the actual coins. The odd thing about this type of picture is that no light whatever is needed.

Place an unexposed photographic plate in ordinary pyro developer, and on it place the coins—those of copper. Only copper coins should be used. All light should be kept from the room save that of a ruby lantern. In five or eight minutes, remove the coins and run the plate through the fixing-bath; then wash in water. You will find that perfect images of the coins will result.

# Why I Am a Snapshooter

KIP ROSS

HUMAN beings are naturally gregarious. Our pithecanthropoid progenitors banded together, whether it was for the slaying of a dinosaur or the pilfering of a pterodactyl's nest. The fellow who walked alone didn't get very far. That also may be applied to the amateur photographer.

Like most snapshooters, when I first got a camera, I was enthusiastic over my new toy. A friend of mine, slightly older than myself, had progressed to a 4 x 5 view camera and was in the throes of "composition". I was eager to advance to his level; but before much progress had been made, he moved out of town, leaving me with a slight notion of the theory of photography he had taught and many questions in my mind. No one else I knew cared for the hobby, and I didn't know enough to progress beyond the snapshot stage; so after a round of snapping my friends, I gave up. I was walking alone in a wilderness.

But last summer I again felt the "urge". Desire to record the unfamiliar scenes of a strange city brought on a relapse of camera fever. I was holding a rather precarious position in San Antonio, Texas—a city filled with strange beauty and Old-World quaintness, especially to a Northern lad. A hazy realisation of its picturesque qualities, a growing love for the old town, and a more active realisation that I might suddenly be forced to leave it, made me wish to record some of the things about me.

Accordingly, I borrowed a camera. It was a "Baby" Graflex, 2¼ x 3¼, with a 4¾-inch Bausch and Lomb Zeiss Tessar, F/4.5. I memorised the instruction book, recalled a little of the things my friend had taught me, and set out for big game.

Naturally, it was to the Alamo, that ancient vine-covered fortress, so famous in historic legend, that I turned first. In the heart of a modern city, yet still standing in solemn but moldering grandeur, never turning its thoughts from the glorious days of the past, the very walls seemed to exude an atmosphere of romance. I would try to capture some of that in my pictures, I thought; but when the prints were returned from the finisher, I saw I had "flunked".

Something was wrong, but I couldn't see what it was. When questioned about it, the clerk in the photo-finishing shop was at first insulted, thinking, no doubt, that his work was being criticised. Then, "Perhaps they are a little over-exposed", he offered politely!

I wanted help, but no one seemed to know what I was talking about. The big difficulty was, I didn't know, either. The table of exposures in the instruction book solved that problem fairly well; but there was something evidently much more intangible than light, for it escaped me altogether. Composition, of course; but where could I learn about it? Again I was walking alone. My ego would not allow me to believe I was devoid of all artistic sense, if someone would just show me where to begin!

Then I ran across a copy of PHOTO-ERA MAGAZINE. I've been reading it ever since. The "Our Illustrations" department furnished really constructive help, and I began to understand some of the things that had baffled me.

After the fashion of the patent medicine advertisement testimonials, I might produce a couple of "after taking" results. They are not at all perfect, but they show some improvement, I believe.

Nevertheless, I am still a "snapshooter". I have returned now to my home in Kansas City, Mo., and have a Graflex of my own; but I still "walk alone". I should like to find someone who takes an interest in photography with whom to talk things over—someone to furnish new ideas, fresh enthusiasm, at times, and perhaps constructive criticism.

The largest photo-finishing house in the city—for I have no place at present to rig up a darkroom—gave me a prize recently for the "best negative of the week". I was in high spirits until a clerk inadvertently mentioned that only a few batches of film were brought in each week during the bad weather. However, I'm not sunk yet. I'm going ahead; but if I could find some other person similarly inclined, improvement would come more rapidly and more enjoyably, I am sure.

In a recent editorial, Mr. Beardsley remarked that the snapshooter of today is the potential pictorialist of tomorrow and should be encouraged. I'm for it! If there could be some means of acquainting really serious snapshooters with one another it would be a great help. Here, in this good-sized city, I know not a single other photographic hobbyist. Nor are the shopkeepers a help. They are mildly interested, but evidently merely in order to sell more films.

The professionals to whom I have mentioned

my interest raise eyebrows and inquire politely, "Is that so?" Press-photographers, of whom I know two, are not interested in "arty" stuff. I have never heard of a camera club here.

A magazine which suits one's personal tastes, as PHOTO-ERA does mine, is a great help; but no matter how inspirational and friendly its tone, it cannot take the place of a flesh-and-blood friend who can go on hikes with you, argue with you, and, perhaps, give you a kick where and when it is most needed.

Human beings, I repeat, are gregarious in their interests. The man who walks alone does not get very far.

# Photography an Avocation and Inspiration

J. RUSSELL KENNEDY

WE who practise the fine art of photography are doubly fortunate: first, in that it renders an outlet for craftsmanship skill, now so nearly extinct in commercial and industrial occupations; and, second, because it brings us in contact with nature, with all its wonders and manifestations. What other hobby or avocation will do this—make use of the arts and sciences in creative achievement and bring us back at last to the beauty, simplicity, and wholesomeness of the earth? Let us rejoice, then, in our choice of so profitable a diversion and inspiration.

## I

Our present economic order is of comparatively recent origin. It was not until the close of the eighteenth century that any definite progress had been accomplished in invention and industry. Man had for centuries been on a self-sufficient basis. It might be of interest here in our study of photography to trace briefly some of this economic progress, in order that we may better understand the times in which we live. Our economic order has become so complex that specialisation in trade and employment has simply had to follow. Man's daily task has become so largely a matter of routine that the creative instinct no longer has had full opportunity to develop.

The story of all industrial achievement may be divided into a few stages, the first of which is the manorial system in England. This was in existence somewhere around the eleventh century. It was composed of landowners and tenants, who for the most part were engaged in cultivating the lands under their domain; for it must be remembered that agriculture at that time was the chief industry, and manufacture and trade were comparatively unknown. The population was sparse and widely scattered and each manor was a community unto itself, having its own customs and manners and providing its own food and clothing and other necessities of life. There were no problems of production, distribution, and employment as we know them today. The next stage of development might be called the era of craft guilds or the period when handicraft prevailed, toward the close of the fourteenth century. With the introduction of tools, manufacture and trade logically followed. The rise of towns was an outstanding contribution of the period, and they became the center of economic progress. The craft guilds carried on the work of manufacture, a guild being organised for each trade or occupation then in existence. It must be borne in mind, however, that the towns, and trade and manufacture, were still in an early stage of development, and, as we know them today, did not exist. The population had not yet increased to such large proportions.

The final stage of industrial activity centers about the so-called factory system, which was ushered in during the latter part of the eighteenth century. It was an evolution of profound importance and far-reaching effects. A changed and altered national outlook was partially responsible, which brought about a desire for new and better methods of manufacture and gave rise to inventions. The steam engine and the mining of coal provided a tremendous stimulus to industry. The center of activity was now transferred from the home to the factory, and machines displaced hand work. Cities arose where towns had been before. The division of labor—and this is what concerns us here—became complex and was no longer the simple problem of the agricultural and handicraft periods. Money instead of goods became the medium of exchange, and man now traded his services or products for the national currency. Specialisation in manufacture and employment became the dominant factor of the age, and today witnesses a vast economic structure far

removed from the simple agrarian life. The medieval craftsman turned out his product from inception to finish, and all the work on it was his; if his trade was that of a shoemaker, then he made the whole shoe. There was a certain satisfaction and pride in the minds of the craftsmen if they turned out articles of merit; for was not the entire work of their own hand? Thus we see something of the essential difference between the craftsman of old and the modern worker of today.

If, then, our economic structure tends to nullify our craftsmanship instincts, may we not find another means through an avocation? Let us look to photography and consider that here, indeed, we have a "calling away" from the exacting and arduous duties of our routine occupations. The laws of pictorial composition and the science of developing, printing, and enlarging you are already acquainted with. Use these things to the producing of pictures with satisfaction to others and honor to yourself. Give the best that is in you to the work. When man's first wants are satisfied, then the higher instincts come into being, and, demanding to be heard, find hope in creative endeavor.

## II

Photography concerns itself not alone with the making of pictures, but with the broader and fundamental concepts of life. It teaches us something of the great plan around which the universe revolves. All nature exalts and stimulates our minds, and, if in following it, the world becomes a better place in which to live, then photography has not been in vain. For photography brings us to nature, and nature to life, and the two help to make us better men and women. Ruskin has said that while brightness in pictures means much, yet brightness in life means more.

Representative great men have pointed the way in ages past. Consider, for our purposes here, the life of a great naturalist, whose teachings may be found of immense value to us in photography. This man, Henry David Thoreau, who lived in Concord, Mass., during the time of Emerson and Hawthorne, at the age of twenty-eight undertook an exceedingly interesting experiment. For two years he lived in a small hut, built with his own hands, at Walden Pond, a few miles from Concord. His purpose was to live a simple life in the woods, removed from man, and to observe the workings and teachings of nature. "I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived". Here amidst nature, he studied the birds, animals, trees, flowers, and everything of the earth. On rainy days there were the books on the shelf to be read. "Books, the oldest and the best, stand naturally and rightfully on the shelves of every cottage. They have no cause of their own to plead, but while they enlighten and sustain the reader, his common sense will not refuse them."

It must not be supposed that Thoreau was lonely in his solitary surroundings, for he was infinitely as much a part of the woods as the feathered inhabitants he talks about. And there were frequent journeys to town for the society of his fellow men. "We are for the most part more lonely when we go abroad among men than when we stay in our chambers. A man thinking or working is always alone, let him be where he will. Solitude is not measured by the miles of space that intervene between a man and his fellows." He sometimes regretted the small size of his dwelling when receiving visitors, particularly when discoursing upon lofty topics. Evidently the conversation was as exalted, at times, as the natural setting in which it took place. "One inconvenience I sometimes experienced in so small a house—the difficulty of getting to a sufficient distance from my guest when we began to utter the big thoughts in big words. . . . If we are merely loquacious and loud talkers, then we can afford to stand very near together, cheek-by-jowl, and feel each other's breath; but if we speak reservedly and thoughtfully, we want to be farther apart, that all animal heat and moisture may have a chance to evaporate." He spent much of his time exploring the near-by ponds, of which there were several, and Walden Pond in particular. In all the four seasons he walked abroad in the countryside to study nature in its various forms. Weather did not disturb him. "The gentle rain which waters my beans and keeps me in the house today is not drear and melancholy, but good for me, too. Though it prevents my hoeing them, it is of far more worth than my hoeing." He kept a garden, as will be seen from this, for his own use, and he prepared his own food, which was of the simplest. "Most men would feel shame if caught preparing with their own hands precisely such a dinner, whether of animal or vegetable food, as is every day prepared for them by others."

Two years in the woods left him with inevitable conclusions. "I learned this, at least, by my experiment: that if one advances confidently in the direction of his dreams, and endeavors to live the life which he has imagined, he will meet

CHINESE "SING SONG" GIRL
YOCK L. CHU
HONORABLE MENTION—PORTRAITS

with a success unexpected in common hours." He counsels everyone to seek his own path, and not to be guided by the doings of others. "If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away. . . . If the condition of things which we were made for is not yet, what were any reality which we can substitute?"

The whole doctrine of Thoreau's life was simplicity, and he had the courage to follow his opinions. His wants were few, and he chose to live that he might observe the beauties and wonders of the earth. That was his belief, and he handed it to us in the immortal "Walden".

# The Limitations and Capabilities of Lenses

LORETTA G. BURROUGH

WE all know that "ignorance is bliss"—except, perhaps, in a school-examination on which hinge important things! However, there are few people who would not exchange that "bliss" for knowledge which, ultimately, brings better results. I am thinking, particularly, about people who don't know the first thing about their lenses. They "rush in where angels fear to tread"! Photographically speaking, they make snapshots under shade trees, with a box camera! Their attitude is, "I'll take a chance—maybe they'll come out!" A more experienced photographer would never have taken that chance, with that camera, under those circumstances. And though he would not enjoy the "bliss" of making that inviting picture under the shade tree, he would, nevertheless, escape the pain of his less fortunate brother when he views the resulting product. So I am writing this in the hope that this article will help the beginner to realise the limitations and capabilities of his lens, and help him to use it sensibly.

First of all, we'll take the single lens of the very popular box camera. This single lens suffers from a good many defects. *First*—and this is most important to the beginner—is its lack of speed. It is seldom faster than F/11—usually, in this country, I believe, it is F/16, which means that it is very slow indeed—and sunny pictures on bright days are what it does best! And it does not care for shady pictures under shade trees; in fact, it can't manage them at all! But, I hear a protest from someone in the audience—it can and will do it if you give a time exposure! But the ordinary snapshot, which the beginner certainly will prefer to give, will not be successful.

*Second:* The single lens is not good for architectural subjects, due to the fact that it cannot record, as such, straight lines at the edge of the plate. The single lens has a few more defects, but they don't matter so much in practice.

The Double Lens, so called because it consists of two parts—a front and a rear element—usually is either a Rapid Rectilinear or an Anastigmat.

The Rapid Rectilinear is ordinarily fitted to the cheaper grade of hand-camera, and a very satisfactory worker it is! It is called "rapid" because it is, at its largest opening, a good deal faster than the single lens at its largest opening, and "rectilinear" because it renders straight lines as such and thus is suited to architectural photography. If possible, it is infinitely better to purchase a rectilinear rather than a single lens, because of the greater speed you have at your disposal and thus the widening of your photographic opportunities. Nevertheless, it is advisable to limit your snapshots to sunny days in order to preclude absolutely the chance of under-exposure. The very dark, dismal days are best left to the F/4.5 Anastigmat. However, with your rectilinear you can make snapshots earlier or later in the day and you are not limited to making pictures at "twelve o'clock noon by yonder church tower, with a bright July sun shining", as you are limited by the slow single lens.

The Anastigmat. This lens is the aristocrat of lenses. Defects are fully corrected, and some anastigmats have speed to spare. But here is a warning! The magic word "anastigmat" covers a multitude of sins. Many a lens masquerading as a "blooded hound" may be only a "yaller cur". The regulation advice, "Buy the goods of only a well-known manufacturer" will protect you.

Anastigmats are supplied ranging in speed from F/1.9—which is about "the last word" in rapidity—to F/7.7, only a trifle faster than the rapid rectilinear. "Quite an array!" says the

beginner. But if he will remember that it is not very practical to purchase a lens of wider aperture than F/6.3 for the ordinary roll-film camera, it limits his choice considerably. The reason for this is that lenses of larger aperture than F/6.3 make focusing by scale extremely difficult. But, of course, if you have a "combination back" on your roll-film camera and thus are enabled to focus on the groundglass, this limitation is removed.

If you cannot buy an F/6.3, buy an F/7.7. Though the increase in speed over the rapid rectilinear is negligible, the anastigmat is much more fully corrected. And here a word about shutters for your anastigmat might not be amiss. If you have purchased an F/6.3 lens, you want your money's worth of speed out of it; so make sure your camera is equipped with a good shutter with a wide range of speeds up to about 1/300 second. Any faster speed than this would be useless, as the lens is not of sufficient rapidity.

And, as always, the old advice holds good—"Know your lens and use it accordingly".

Do not expect from a single lens that which would only be possible to a high-class anastigmat. Each has its uses. Within its capabilities, the single lens will serve your purpose as well as the anastigmat.

# Adjustable Table for Close-up Photography

GEORGE BOARDMAN PERRY

CLOSE–UP photography of small objects, sample decorative panels, and so on requires just the right light for satisfactory results. It is also rather difficult to get the object at just the right height when using an ordinary stand or table.

To avoid the necessity of rigging up something for the work each time, with its consequent delay, I made the adjustable table shown in the drawing.

The top is mounted on an old camera-tripod, which is easily adjustable to any height almost instantly. The whole device is of light weight and very easy to move around. It can be placed where you want it without loss of time.

The top is made from two pieces of wood 12″ x 12″ x ⅝″ thick. These are glued and screwed together as shown in Figure 3.

I placed the back-board of the top 2″ from one edge of the board. This gives me two tables in one. One side, the 2″ one, I use for flat subjects, such as wall-panels; and the other side is used for small objects such as carvings, vases, and so on.

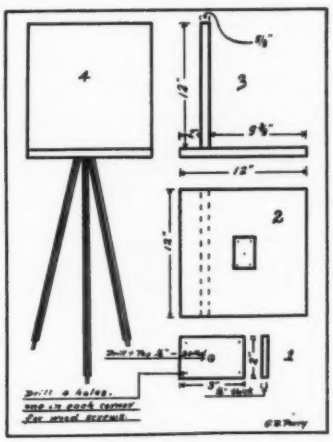
The back-board allows me to place a suitable background in position behind the object to be photographed.

In order to fasten the top to the tripod in such a way that it can be removed easily and still be perfectly steady, I made a plate from a piece of band iron 3″ x 2″ x ¼″ thick.

A hole was drilled in the center with a No. 7 drill and then tapped out with a ¼″–20 tap.

Four holes were drilled in the corners to fit the wood-screws that I happened to have on hand. See Figure 1.

This plate was screwed to the bottom of the table-top as shown in Figure 2. Then the tripod-

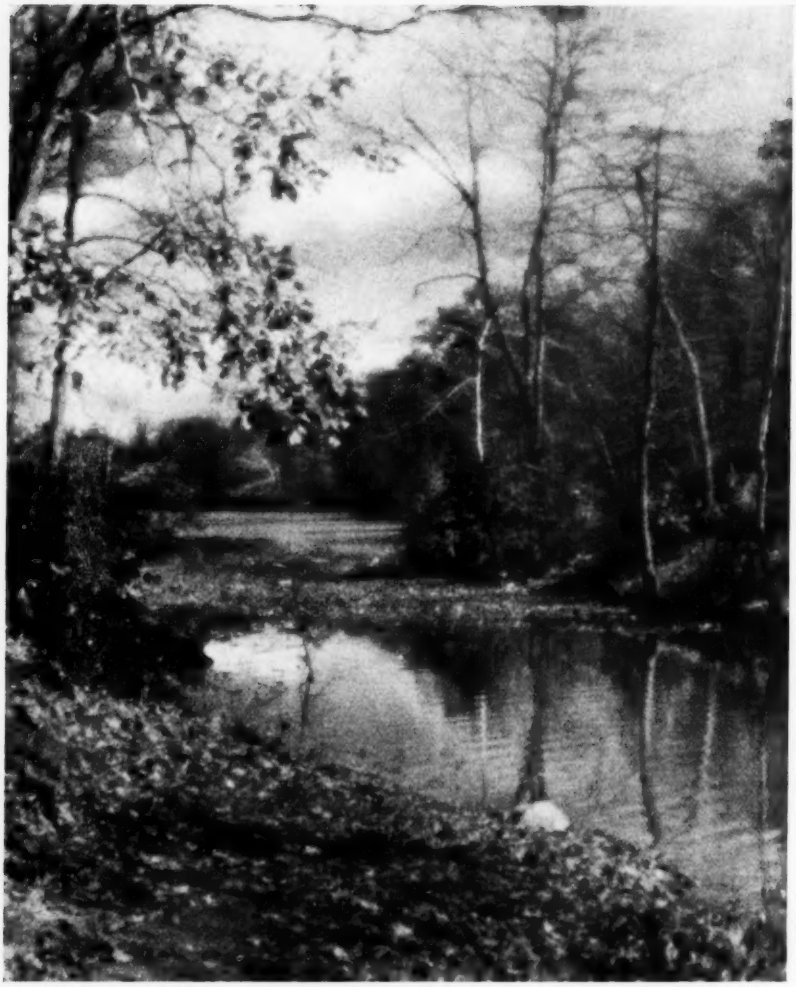



FIGURES 1—4

GEORGE BOARDMAN PERRY

screw was removed and a ¼″–20 round-head machine-screw was inserted in the hole in the tripod and screwed into the plate, completing the table as shown in Figure 4.

The dimensions herein given can be varied to suit your own individual problem.



TRANQUILLITY
S. M. MC NAIR
HONORABLE MENTION—BEGINNERS' COMPETITION

# EDITORIAL

## What Does Spring Mean to You?

WE wonder sometimes whether certain persons even notice the change of seasons. We remember our days in office buildings when the roofs or the sides of adjoining "industrial beehives", with perhaps just a patch of blue sky, comprised "the view". All seasons of the year were very much alike, as seen from these city-windows. At times there might be a bit of white snow in winter, but, within a short time, it lost its whiteness, and finally disappeared from the roofs. We venture to say that there are thousands of business and professional men and women who secretly cry aloud for the opportunity to see a bit of clean, green, smiling open country.

There are some good friends of ours who have extended their sympathy to us because we chose to forsake the city and to settle on the shores of Lake Winnipesaukee in the foothills of the White Mountains of New Hampshire. Ours is the clear, pine-laden air of the hills and forests; ours is the glory of miles of lake and mountain scenery; and ours is a fuller and deeper knowledge of the true meaning of spring. Roofs, brick-walls, smoke, noise, crowds, and excitement were ours for many years; but in them we never found the quiet contentment, the homely pleasures and the real living that we have known since having a home and working where spring, summer, fall, and winter are glorious experiences instead of merely dates on an office calendar.

What has all this to do with photography? Just this—that the thousands in whom there is a great yearning for the hills and green fields will find in photography some measure of panacea. Even though Sundays and holidays alone are available, let these nature-hungry men and women turn to their cameras for comfort and inspiration. Few there are, even in our largest cities, who cannot find some park, garden, or reservation where a taste of spring may be enjoyed. The search for pictures will lead on and on, while the lungs become filled with fresh air and sluggish blood is stimulated into healthy action. In all probability, without a camera as companion, the walk would be of short duration; but with a camera and true enthusiasm, pleasant hours in the spring sunshine will be prolonged 'till the twilight hour.

Those of our readers who do not enjoy the privilege of "close confinement" in our cities will make the most of their opportunities to go afield with their cameras. Our suburban and rural readers will hear the song of birds and will note the early spring flowers. There will be wonderful cloud-formations, charming vistas with delicate, atmospheric haze, gurgling brooks, and the eternal hills to entice them to use their cameras as every new subject comes into view.

Yet there is something that goes even deeper than the outward interest in spring. Most of us do feel, and should feel, that we are younger, healthier, happier, and more prosperous as the sunshine becomes brighter and warmer. There should be a tendency to forget the past and to capitalise the present. It is a splendid time to have a mental house-cleaning. Our cameras will lead the way to the source of new spiritual and physical strength, if we will let them. We cannot go far afield in the spring sunshine without becoming convinced that there is a Master Architect of the universe and that there is beauty, inspiration, and peace along the open road. As we work with lens, shutter and film to capture the elusive cloud, the apple-blossoms, and the distant hill, our eyes are being opened and our hearts are being touched. We may wonder at our reaction and fail to account for it; but the important thing is not why we feel as we do, but rather that we respond to the deeper and finer influences. Happy should be the man or the woman who is thrilled by the grand symphonies of spring which Mother Nature sends reverberating across the hills and through the woodlands of the world.

What does spring mean to you? It may mean that through photography you will begin a happier, truer, and more useful life—a life which has become attuned to the clean, fine things, which, after all, are essential to permanent happiness and contentment.

Photography can help us all to express for others the happiness we have found in the sailing cloud, the sparkling lake and the singing pines. The Master Architect through the budding tree, the nesting bird and the twinkling star points the way to what spring may mean to you and yours, if you will.

# ADVANCED COMPETITION

**Closing the last day of every month**
**Address all prints to PHOTO-ERA MAGAZINE, Advanced Competition**
**Wolfeboro, New Hampshire, U.S.A.**

## Prizes

*First Prize:* Value $10.00.
*Second Prize:* Value $5.00.
*Third Prize:* Value $3.00.

*Honorable Mention:* (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers,* will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded will receive a neat silver cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes may be chosen by the winners, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books. If preferred, the winner of a first prize may have a silver cup, suitably engraved.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones,* go to the maker of the picture.

All competition-pictures not returned are used to make up the PHOTO-ERA PICTURE EXHIBIT which is sent to schools, libraries, museums, camera clubs, and to responsible organisations for exhibition-purposes, *free of cost.*

## Rules

1. This competition is free and open to photographers of ability and in good standing—amateur or professional.

2. Not more than two subjects may be entered, but they must represent, throughout, the personal, unaided work of competitors. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered into competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

3. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations and detail. Prints may be mounted or unmounted.

4. Each print must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately,* giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer, and printing-process. Enclose return-postage. Data-blanks sent at request.

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he shall have received official recognition.

**Photo-Era Prize Cup**

6. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces is sent with data.

7. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right-angles to each other.

8. Competitors who have won three first prizes within a twelvemonth become ineligible to receive prize cups in this competition for *one* year thereafter.

## AWARDS—ADVANCED COMPETITION

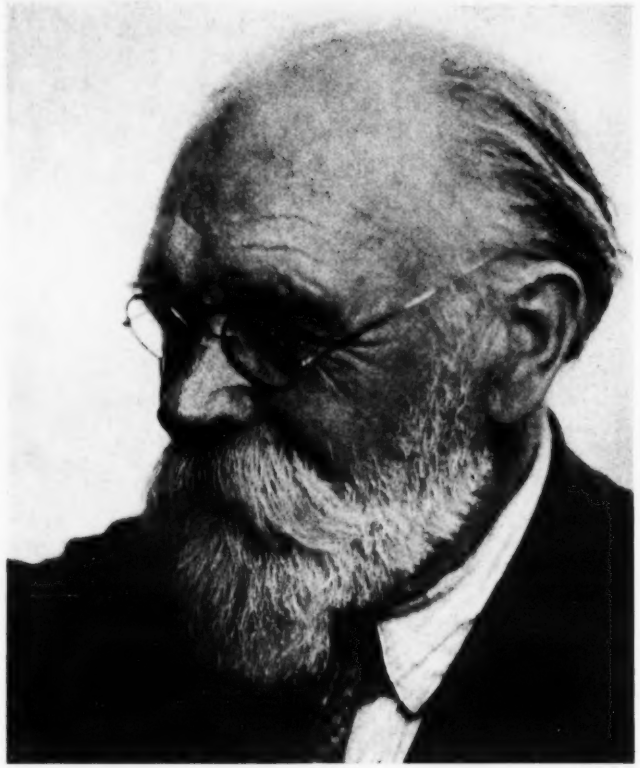
### Subject—PORTRAITS

### Closed February 28, 1929

| | |
|---|---|
| *First Prize* | James D. Creegan |
| *Second Prize* | Boris Chudadoff |
| *Third Prize* | Harry A. Neuman |

*Honorable Mention:* Edward Alenius; Barton Bachmann; Richard C. Ball; Daisie B. Chapell; Joseph Christ; Yock L. Chu; Charles Clayton, Jr.; I. M. Corkum; Gordon H. Coster; F. E. Crum; Fred B. Daniels; James P. Dunn; Mrs. W. F. Eldridge; David Finklair; Curt Foerster; Ira Norman Gullickson; John Hanna; William F. Happich; Zoltan Herczezh; U. Stephen Johnson; Eleanor Jones; Elaine H. Kern; Dr. Maximilian Kern; Alexander Leventon; William J. McCune; Anne H. Mellin; Byron Morgan; N. J. Nalawalla; M. A. Obremski; Dr. B. J. Ochsner; George H. O'Rourke; A. J. Pandian; Ida W. Pritchett; Leonard H. Purin; Ulrich Schmidt; John Skara; Hubert Stead; Dr. Max Thorek; A. M. Tomlinson; William O. Yates.

DOMINICA FODERARO
JAMES D. CREEGAN
FIRST PRIZE—PORTRAITS



PROFESSOR WOROLIEFF
SECOND PRIZE—PORTRAITS

BORIS CHUDADOFF

LILA

HARRY A. NEUMAN
THIRD PRIZE—PORTRAITS

## SUBJECT FOR NEXT COMPETITION

# ADVANCED WORKERS

### Subjects for Competition—1929

"My Home." Closed January 31.
"Portraits." Closed February 28.
"Indoor-Genres." Closed March 31.
"Miscellaneous." Closed April 30.
"Artificial Light Photographs." Closes May 31.
"Architectural Subjects." Closes June 30.
"Pictures of Children." Closes July 31.
"Miscellaneous." Closes August 31.
"Outdoor-Genres." Closes September 30.
"Animal Pictures." Closes October 31.
"Water-Scenes." Closes November 30.
"Miscellaneous." Closes December 31.

### Architectural Subjects

It seems to us rather fitting that we use as a beautiful example of interpretation the picture by the late Joseph Petrocelli that received second prize in the Architectural Competition which closed in June, 1928. It is not given to all of us to have the subjects which Petrocelli found as he traveled about in Europe, yet, by studying the illustration on this page we cannot fail to learn something of composition, lighting and center of interest in architecture. We have often pointed out that one great advantage in photographing architectural subjects is that they remain motionless as long as the pictorialist cares to stay in the vicinity—and after he is gone, for that matter. What opportunities there are to study light and shade! Then, too, what a delightful—and sometimes perplexing—problem it is to compose an architectural subject to advantage. As in the case of most subjects, there is one point from which the subject appears at its best. It is not always easy to find this viewpoint; but therein lies the fascination of pictorial photography.

With all due respect for the importance of the artistic principles involved in photographing architectural subjects, we must admit that a practical knowledge of the rising-and-falling front, the swing back, wide-angle and telephoto lenses, exposure and the right plate or film to use is essential to success. Although the subject may not add to the problem by moving, it offers an excellent opportunity for the display of all the artistic and technical skill which the pictorialist can command. This competition is a challenge to the sporting as well as the artistic side of our natures. It is a bit of a test of our pictorial confidence.

A. H. Beardsley.

THE GLORY OF BAALBEK — JOSEPH PETROCELLI

EXAMPLE OF INTERPRETATION

# BEGINNERS' COMPETITION

**Closing the last day of every month**
**Address all prints to PHOTO-ERA MAGAZINE, Beginners' Competition**
**Wolfeboro, New Hampshire, U.S.A.**

## Prizes

*First Prize:* Value $7.50.
*Second Prize:* Value $3.50.

*Honorable Mention*: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers*, will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded, will receive a neat silver-cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes, chosen by the winner, will be awarded in photo-materials, sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books.

No Prize or Honorable Mention pictures are sold, exchanged or the half-tone plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones*, go to the maker of the picture.

## Rules

1. This competition is open only to beginners of limited experience with practical camera-activity, and whose work submitted here is without any practical help from friend or professional expert.

2. Workers are eligible so long as they have not won a first prize in this competition. Winners of the first prize automatically drop out permanently, but may enter prints in the Advanced Class at any time.

3. Prints eligible are contact-prints and enlargements up to and including 8 x 10 inches.

4. Prints representing no more than *two* different subjects, for any one competition, and printed in any medium except blue-print, may be entered. Prints may be mounted or unmounted, as desired. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered in competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

5. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations.

6. Each print entered must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately*, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks sent at request.

7. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he has received official recognition.

8. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces or fraction is sent with data.

9. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right angles to each other.

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

THIS is to certify that an Award of PRIZE
is hereby given to the picture entitled

entered by

in the PHOTO-ERA MAGAZINE Monthly Competition

which closed 192

Editor

PRIZE-WINNERS' CERTIFICATE

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

THIS is to certify that an Award of *Honorable Mention*
is hereby given to the picture entitled

entered by

in the PHOTO-ERA MAGAZINE Monthly Competition

which closed 192

Editor

HONORABLE MENTION CERTIFICATE

## AWARDS—BEGINNERS' COMPETITION

### Subject—MISCELLANEOUS

### Closed February 28, 1929

*First Prize* . . . . . John C. Moddejonge
*Second Prize* . . . . . Alma R. Lavenson

*Honorable Mention*. J. A. Baker; A. W. Clark; Leland H. Croscup; J. Daniels; Edward Glaser; L. P. Gravel, Jr.; M. Itoh; R. W. McKee; S. M. McNair; John Adam Moore; John R. Olson; J. W. Rough; Carl E. Shaw, W. H. Smith; Harry W. Story; Evangeline D. Tienken.

*First Prize*

BEGINNERS' COMPETITION

MISCELLANEOUS

WINTER-SHADOWS — JOHN C. MODDEJONGE

*Second Prize*

BEGINNERS' COMPETITION

MISCELLANEOUS

MOUNT TAMALPAIS — ALMA R. LAVENSON

# OUR ILLUSTRATIONS

ERNEST H. WASHBURN

KARL BUTKA, of the Fort Dearborn Camera Club, Chicago, who is the latest to join PHOTO-ERA MAGAZINE's galaxy of pictorial autobiographers, has contributed quite an original arrangement in his "Sunlit Vista". Although the type of subject has been photographed many times, this print is different in treatment. Ordinarily, most photographers show both supporting columns of an arch. Mr. Butka has chosen to omit one of them; but nevertheless it is not missed, particularly, as he gains balance for the other column by the dark masses of the window and archway at the farther end of the courtyard, the flight of steps, and the small fragment of the base of the omitted column. By this latter we are shown and feel that the other column is there. There is an atmospheric charm in the courtyard caused by the patches of brilliantly lit flagging and colonnade, which enliven the whole picture. The colonnade and gallery show a fine perspective, enabling us to sense and gauge the distance to the opposite wall. We like the way the farther wall lights up toward the top, giving a feeling of height. The hanging pot of plants further aids to supply a sense of distance across the courtyard. We have here a charming vista.

Data: Made in Chicago, with a postcard Kodak; lens of 6½-inch focus, at stop F/22. Exposure 1/25 second in July, at 11 A.M., in good light. Eastman film; pyro developer; chloride enlargement. *Note:* The exposure appears very short for such a subject.

R. A. Wohlrabe has illustrated his article "Bringing Back a Bit of China" with two examples of his technical skill. The first of these, a street-scene in Hongkong, is unusually fine, with an interesting foreground and fine perspective leading up to the distant mountain. Although it is made against the sunlight, or with it directly overhead, as indicated by the cast shadows under the cart, yet it is not especially strong in contrast. The foreground group is especially interesting.

"The Gateway to Kowloon" is as different from the preceding as could be imagined, but was handled with equal ability. Mr. Wohlrabe used the trees at the right to good advantage to assist him in showing distance and aërial perspective. The wall might have been so treated as to block the foreground, but he made it with an eye trained to correct point-of-view; consequently, it offers no impassable obstruction. There are no data, other than in Mr. Wohlrabe's story.

"Rock-Garden Witchery", accompanying David D. Cooke's article by the same title, shows beautiful examples of correctly arranged and properly planted flowers in a rock-garden. Mr. Cooke says it is "a study in greens, blues, and yellows". The print seems a little too dark for sunlight.

Data: Made at 9.30 in July, on 4 x 5 Eastman Panchromatic film; Cooke lens F/4.5, used at F/16. One second exposure, with K-1 filter. Enlargement on Novabrom No. 10, Vigorous.

"Iceland Poppies", although not in very good focus, is the most pictorial of the group, by reason of the arrangement of the stalks and the light blossoms against the dark background.

Data: Made with Cooke anastigmat F/4.5 on Filtered Ortho Anti-Halo plate. Exposure, 1/25 second at F/8 (no filter), at 11 A.M. in July. Enlargement on Novabrom No. 10, Vigorous.

"Sempervivium Globiferum" is an interesting little plant. It is to be regretted that the focus was not sharp on it but appears to be farther back. A smaller stop and more exposure would have been better, if conditions allowed of such procedure.

Data: Made in July, 11 A.M., weak sun, with Goerz Dagor lens F/6.8, in 1/25 second, on Filtered Ortho Anti-Halo plate. No filter used. Print on Novabrom No. 10, Vigorous.

The writer has recently attended the Centennial Exhibition of the Boston Horticultural Society, and saw there rare plants and flowers in bewildering variety, and many of an exotic beauty and luxuriousness beyond description. Mr. Cooke's prints, particularly "Rock-Garden Witchery", remind me of some of the exhibits. I hope many readers of PHOTO-ERA MAGAZINE were privileged to see this wonderful exhibition, commemorating the hundredth anniversary of the society. Its equal may never be seen again.

"Chief Two-Gun White Calf", honorable mention portrait by George H. O'Rourke, is of a typical Indian chief—inscrutable, wise, powerful, cruel. All of these traits are displayed in this literal profile. We feel we should not care to be in his power, were he bent on evil. Mr. O'Rourke has made a technically accurate and perfect negative in full detail, with good values. A trifle less sharpness might be somewhat more pleasing. We should also say that a bit more of detail in the ear-piece would be desirable.

Data: Made in Baltimore, Md., by daylight at 3 P.M. in September. Premo 4 x 5 camera, Kodak anastigmat, 6½-inch, at F/7.7. Exposure 1/25 second, on Eastman Panchromatic, developed in Pyro Elon. Enlargement on portrait bromide.

Milton M. Bitter's "The Radey Baby", accompanying his article, will score a success with the mothers. One of them (at my elbow) says, "Isn't he sweet?" The head is well rounded, and good detail is shown in the white dress. Considering the brief exposure that must have been used to catch that little hand, we think it excellent. And enough definition is shown in all parts. The color of the print is what used to be termed "velvety black", much desired by bromide workers. There are no data excepting those in Mr. Bitter's article.

"Self-Portrait", by Dr. Max Thorek, is an excellent piece of work, but we are not quite so well satisfied with it as with the doctor's landscape work. It seems somewhat crowded in the picture-space. And we should prefer to see the thumb a little under and slightly touching the side of the chin, rather than as it is. However, these are personal ideas. The head is well modeled, but the hand has the appearance of not having all the fingers, due to its position with relation to the lens. We have no doubt it is a good likeness, or the doctor would not have submitted it, but somehow we feel like saying, "Try again!" and "Smile a little, please!"

Data: Made in Chicago in January, P.M., with

home-portrait camera, 4 x 5, and Wollensak Velostigmat of 12-inch focus, at F/4.5. Halldorsen light, ½-second exposure, on Agfa Matte film; Elon-Pyro developer. Enlarged on Wellington Extra Rough bromide.

Bernard Feder's prints, "In the Conservatory", are all extremely interesting. Our choice is the center picture, by reason of the beautiful veined leaves, and other large specimens in the immediate foreground. The picture at the left shows a nice bit of perspective and that on the right a fine touch of sunlight.

Data: Made in the glass-house, Lincoln Park, Los Angeles, by Bernard Feder, a boy in the beginner's class in photography at the Roosevelt High School, Los Angeles, Calif. Folding Hawkeye camera, 3¼ x 5½, with meniscus-achromatic lens. Exposure, 5 seconds, at stop No. 3; 11 A.M. The prints were sent in by Claude E. Sparks, photo-instructor.

"Chinese Sing-Song Girl", by Yock L. Chu, shows a very serious effort to make a fine picture. It suffers from being too dark, and the sing-song girl seems very sober, not as though she were happy. We should like to see the figure turned a trifle, so as to take the left hand and end of the instrument farther from the lens, reducing the size of both. They are too large and make the head appear too small. The lighting is pleasingly soft and the face beautifully modeled.

Data: November in studio, artificial light, Johnson lamps, one 1500-watt for the main source of light and one 1000-watt for general illumination; both daylight blue. Ilex Paragon Anastigmat, 12-inch focus at F/5.6, ½-second exposure, on Agfa Regular portrait film, par-speed. Developer was from the instruction-sheet of the film-maker. Contact print on Tumagas enlarging-paper, 8 x 10.

"Tranquillity", by S. M. McNair, is a beautiful subject, and so well handled as to gain honorable mention in the Beginners' Competition. We think a little more firmness of definition, particularly in the foreground and trees at the left, would have been better, as there is a tendency to general fuzziness which does not clear up, even when the print is viewed at a distance. Also, we should suggest to show more at the left and less at the right. The larger trees at the left seem to contain more of interest. Some careful toning down here and there, as, for example, the white stone in the foreground and a few other over-intense light spots, would improve the unity of the picture. This is an unusually alluring spot for pictorial work, and we feel we should return to it many times at different hours and seasons and find several fine pictures, eventually. We hope that Mr. McNair, after reading the editorial on the opposite page, will go out again to this spot and apply the text.

Data: Made in Bronx Park, New York City, with a Revolving-Back Graflex, 4 x 5, Kalosat soft-focus lens, used at F/6.3 with K-1 filter. Exposure, 1/10 second, at 11 A.M. in October—fair sunlight, slightly hazy—on Eastman Panchromatic film, developed in Eastman A. B. C. developer. Enlargement on Velour Black Platinum Matte, developed in Defender M. Q., commercial formula.

## Advanced Competition

"DOMINICA FODERARO", a beautiful and musical name for a wonderfully beautiful subject—and Mr. D. J. Creegan has not fallen behind the title and subject in the beauty of his portrait, winning first award in the portrait competition. The picture is practically beyond criticism, as the artist, apparently, is well-skilled in posing, lighting, and composition as well as in photo-technique. We would just as soon see the hand in the lap, but should not condemn it as it is. Students of photography should take note of the simple apparatus employed in making this exquisite portrait.

Data: Made in a living-room at Kingston, Pa., with an Ica 9 x 12 cm. camera, and Heckla lens of 13.5 cm. focus, at F/6.8, in the month of January, at 11 A.M., by bright light from three windows. Exposure, 1 second on Eastman Portrait film. Pyro in tray. Enlarged on Eastman Portrait Bromide.

"Professor Worolieff", by Boris Chudadoff, wins second prize and is indeed a close second. We find no fault in this fine portrait, and are sure we should enjoy knowing the professor. His face fairly radiates good will and kindliness. Whatever he teaches, we should like to be in his class. Again, the simple camera was employed.

Data: Made by daylight at 6 o'clock P.M., with a 2¼ x 3¼ Graflex. Anticomar lens F/4.2, wide open. An exposure of 1/25 second was given, on Eastman roll-film, developed in tank, with Rytol Enlarged on Defender Buff-Platinum, matte; chromium intensified.

The relative difference between the three prize-winning prints is so small that we think the judges must have had close work to decide between them. "Lila", by Harry A. Neuman, is so fine that we cannot write aught but praise. In pose, lighting, modeling, tone, and spacing, it ranks high. Another print of this was hung at the Pittsburgh 1928 Salon. We note the poster-like simplicity of this print, with its rich yet transparent shadows, soft middle-tones, and clear lights.

Data: Made indoors by the light of a 200-watt lamp. A Ruby Reflex camera was used, fitted with a Darlot lens of 10-inch focus. Six seconds' exposure, at F/4.5, was given, on Agfa film-pack, which was developed in Rodinal. The print is on 8 x 10 enlargement on P. M. C. No. 8.

## Beginners' Competition

THE first-prize picture, "Winter Shadows", by John C. Moddejonge, is remarkable for its brilliancy, and yet there is detail in every highlight and shadow, when we look for it. But we should like to see a print with a little less contrast and think it could be done without sacrificing brilliancy. If Dodge McKnight's famous watercolor paintings of snow-scenes were translated into black and white, we believe they would appear something like this, with their strong, sparkling sunlight-on-snow effects, deep violet shadows of the trees on the snow, and dark trunks of the trees themselves. The composition here is not bad. The group of trees on the right dominates, and their shadows form good opposing lines of support. There is such a surplus of trees at the left that we feel we should trim away from that side, up to the very straight trunk, and then trim a little from top and bottom to restore a pleasing proportion. On the whole, we think that would improve it by concentrating the interest.

Data: Made in Brookside Park, Cleveland, Ohio, in January at 1.50 P.M., in brilliant sunlight. A 3A Kodak was used, with Bausch & Lomb Tessar lens of 6¾-inch focus. Two seconds' exposure at F/16, with Kodak color-filter, was given, on Eastman roll-film. Development was in Hydrochinon, formula D.72. Enlargement on Defender Velour Black.

"Mt. Tamalpais", by Alma R. Lavenson, of Oakland, Calif., which takes second prize, is strong in composition and atmosphere. The mountain is back in the distance, enhancing the aërial perspective effect, and the foreground masses are well arranged, setting off

the middle and extreme distance. The dark diagonal shadow crossing the foreground is a little too black for truthfulness. The same holds true of the tree masses. We should like to see the trunk of the left-hand tree.

Data: Made in California in December at 11.30 A.M., weak sunlight, with Ensign Reflex, 3¼ x 4¼ and Waterbury lens, at F/6, on Eastman Super Speed film; exposure 1/50 second, no filter; Amidol developer. Enlarged on Wellington Cream Crayon bromide.

The picture "Christ in the Olive Garden with the Children" is from De Mille's "The King of Kings". The group is happily done, as would be expected from such a source. We wonder if the costume of the child on the left is historically correct.

## Night-Photographs of Washington from the Air

CAPTAIN ALBERT W. STEVENS, one of the foremost aërial photographers of the Army Air Corps, piloted by the veteran Army flyer, Lieutenant John D. Corkille, made night-photographs of the White House and the Capitol on the night of March 3, 1929.

A standard O-2 Observation airplane, equipped for night flying, with landing lights and long exhaust stacks, was used in this night photographic work. These lengthy exhaust stacks are utilised in order to eliminate the flare from the exhaust gas. The flare, which is only visible in darkness, has a tendency to blind the vision of the pilot and fog the picture. In night aërial photographic work, absolute darkness in the airplane is essential for best results.

The camera used was the standard Army K-3, which, with a few modifications, is now being supplied to Air Corps organisations.

Captain Stevens was not favored with the best of luck in his endeavor to make photographs of the Capitol City on the night before the Inauguration. Several unexpected mishaps in the operation of the camera and the flashlight bomb release prevented him from obtaining the best results. Taking off at 7.30 P.M., the plane circled over the White House, a flash-light bomb was released, and the camera clicked. The photograph did not prove entirely successful, however. Fearing that a heavy charge of magnesium powder in the bomb would cause too great a disturbance in that vicinity, the charge was reduced, and for that reason the photograph was not as sharply defined as would normally have been the case. From the White House the plane was flown over the Capitol, and Captain Stevens attempted to make a photograph of it. For some unknown reason the bomb-rack failed to function, and the flashlight bomb stuck despite all Captain Stevens's efforts to extricate it with his fingers, which he later found to be torn and bleeding.

Lieutenant Corkille flew the plane back to Bolling Field, and at 10.30 P.M. took off again, with bombs of larger capacity, containing twenty-five pounds of magnesium powder, to take several views of the Capitol. The first "shot" turned out satisfactorily. The detonation from the bomb could be heard for some distance, and several windows in near-by buildings were broken as the result of the vibration. This photograph turned out sharp and clear. Captain Stevens's second attempt to photograph the Capitol met with failure. It appears that some part of his parachute became entangled with the electric switch, and when the flashlight bomb was released the shutter failed to trip. After each picture was made, the plane was flown over the Potomac River and Captain Stevens busied himself with the quick-work developing process. Five minutes or so later, Lieutenant Corkille piloted the plane over the parking area back of the Munitions Building, which had been cleared of automobiles. Placing the can containing the developed, washed, and dried negative in a message-bag, to which a long white streamer was attached, as well as a red flare, it was dropped from the plane and landed within ten feet of the group of Air Corps officers, Major Longanecker, Lieutenants Ennis and Kirksey, who were waiting below. The first time the message-bag was dropped, the flare blew out in the slipstream and they failed to see where it landed. Calling up Captain Stevens at Bolling Field, he stated that the bag dropped close to the wire-fence and within thirty feet of the gate. The night was quite dark, and, with shrubbery, and many trees in the vicinity, the group of officers felt that they were about to search for a needle in a haystack. Walking to the point specified by Captain Stevens, the streamer and message-bag were found hanging on the wire-fence.

The films were taken to the office of the American Telegraph and Telephone Company, where a positive film was printed from the negative in the same manner as a positive picture would be printed. Both films were then placed on the transmitting roll or drum of the telephoto apparatus and immediately sent by wire to eight of the principal cities of the United States. There they were recopied and twenty-five positive prints struck off at each station and delivered to Army Air Corps representatives for distribution to the press.

*Air Corps News Letter.*

## High Altitude Photography

THE Material Division of the Air Corps, Wright Field, Dayton, Ohio, recently received from the Bureau of Standards two barographs and two recording thermometers used on the altitude flight of Lieutenant Harry A. Johnson and Captain Albert W. Stevens on December 11 last.

The recording thermometers in the barographs showed –47° C. as the temperature of the barograph elements. A recording thermometer in the same compartment in the tail of the plane as the barographs showed –52° C. The difference of five degrees shows that the barographs did not cool down even after almost an hour and three-quarters of flying at high altitude, to exactly the temperature of the surrounding air. This recording thermometer in the tail compartment also showed that the temperature of the fuselage is 5° warmer than the air striking the wings of the airplane, because a similar thermometer on the outer strut of the airplane showed –57° C.

This is the first time that recording thermometers of this type have been used. These thermometers recorded only the minimum temperature. They consist of bi-metallic spirals, actuating arms, at the end of which a stylus made a mark on a smoked metal plate.

These instruments were devised by Mr. Henrickson of the Bureau of Standards, and were constructed, in part, by the Material Division. The altitude of this flight, as computed from tables of the F. A. I., was 36,903 feet. The photographs obtained on this flight came out successfully. Due to the priority of other work, and the great amount of work involved in computing altitude by the camera, computations for true altitude have not, so far, been made. It is probable that the true altitude will be in the neighborhood of 38,000 feet, from a comparison of results obtained on other flights, in which F. A. I. figures were compared with figures obtained by measurements of the lens, camera-image, and ground survey.

*Air Corps News Letter.*

# THE EDITOR'S CORNER

## Photo-Era Trophy Cup Scores

THE "Indoor Genre" Competition which closed March 31 contained some very unusual subjects. In fact, some were so out of the ordinary that the judges felt that originality was sacrificed to the bizarre. Originality and freshness of thought are to be commended, and it is our desire always to encourage the striving for something different and better; but good taste, artistically and technically, is essential to permanent pictorial success. Alexander Leventon of Rochester, N.Y., received First Prize in the Advanced Competition. He is not a camera club member. The Second Prize was awarded to Alvin Zachary of the Photographic Club of Baltimore, and the Third Prize went to Waldemar Glass, who is not a club member. In the Beginners' Competition, the First Prize was awarded to K. Kiga, not a club member, and the Second Prize to Alma R. Lavenson, also not a club member. Among the Honorable Mention awards the Photographic Club of Baltimore received three; the Fort Dearborn Camera Club, two; the Photographic Society of Philadelphia, one; the Chicago Camera Club, one; and the Seattle Camera Club, one. This month, most of the prizes were awarded to contestants who are not members of a camera club. It was an interesting competition and revealed the fact that many of our friends who have hesitated to send in pictures are now doing so and finding much pleasure in the effort. The standing of the clubs as of April 5, 1929, was as follows:

| | |
|---|---|
| Photographic Club of Baltimore | 25½ |
| Fort Dearborn Camera Club | 18½ |
| Cleveland Photographic Society | 9½ |
| Seattle Camera Club | 9½ |
| Brooklyn Institute | 9 |
| Wilkes-Barre Camera Club | 3 |
| Chicago Camera Club | 2½ |
| Photographic Society of Philadelphia | 1½ |
| Syracuse Camera Club | 1½ |
| Lansing Camera Club | ½ |
| Toronto Camera Club | ½ |

## Our Apologies to Mr. Purin

PROBABLY our readers, sometime, have suddenly discovered that they overlooked doing some very simple, obvious thing and then wondered why no one else noticed the omission. We are in this very position with regard to an oversight which occurred in the March number. On page 152 appeared the Second Prize picture in the Advanced Competition. Its title, "The Centenarian", was duly recorded, but the name of the maker, Leonard Purin, was omitted. This unintentional oversight was not discovered until the morning of March 22, when we happened to refer to this prize picture in our desk copy and the error was discovered. If any of our readers, including Mr. Purin himself, noticed the omission, we have received no word of comment. Can it be that no one noticed our omission? At any rate, we extend our apologies to Mr. Purin, and we will try very hard not to let it happen again.

## Off to the Antarctic

ON this page in the April issue the Editor referred to an interesting incident in connection with Arthur T. Walden of Wonalancet, N.H., and his famous dog "Chinook". In a letter of appreciation received from Mrs. Walden, she adds that she is forwarding a copy of PHOTO-ERA MAGAZINE to Mr. Walden, who is now with the Byrd Expedition in the Antarctic. Without a doubt, this is the furthest south that any copy of the magazine ever penetrated. We hope sincerely that it reaches him and that it will find him well and happy.

## Give Me But Eyes

Give me but eyes
To know the joy that lies
In common things:
A pale moth's velvet wings,
A fern-fringed pool,
Green mosses dripping cool,
The voice of rain,
The clouds in silver train,
Friendship of trees,
A meadow loud with bees.
To glimpse each great surprise,
Give me but eyes!

GERTRUDE E. FORTH.

WE feel deeply indebted to the author of this poem. It seems to express so well that which we have tried so often to make clear to our readers.

## Too Warm for Comfort

ON the morning of April 5, as we were completing the material for this page, the fire whistle startled us with its alarm. We counted the number and were further startled to learn that the call came from in front of our building. We opened the door into the hall and met a man coming up the stairs, two steps at a time. "The whole roof over your head is ablaze", he yelled. This was even more startling. We hurried to a window and looked out. A crowd was collecting and pointing to the roof of our building. We hurried down the one flight of stairs to the street to see the situation for ourselves. Surely enough, heavy smoke and jets of flame indicated that the greater part of the roof was ablaze. However, we noticed that most of the fire was not immediately over our offices. There was ample time to plan an orderly retreat from the building should it become necessary. We returned to our desk, took stock of the papers on it, collected our records, apportioned to each one of the staff what to carry out, and then we proceeded to make pictures of the fire-fighters at work. Fortunately, the fire did not penetrate a fire-wall, but was confined to the part of the building in which it started. However, the next problem was to come from the water, which began to pour down the stairs and to filter down through the floors and walls. Again we were very fortunate, for, with the exception of a little water which ran across our floors, we remained dry. Altogether, a rather unexpected and uncomfortable situation in which to prepare the material for this page!

# THE MONTH IN APPLIED PHOTOGRAPHY

C. B. NEBLETTE, A.R.P.S.
*Division of Photography, A.M., College of Texas*

## Finding New Planets by Photography

LONG before the dawn of history, man had noticed that the bright stars form groups, and the familiar constellations, such as the Big and the Little Dipper, the Northern Cross, the Greater and the Lesser Bear, the Crab and the Sickle, have come down to us from remote antiquity. Prehistoric man had also observed that while the stars of the familiar constellations occupy definite positions and may be found year after year in the same positions, there were moving stars which followed a regular course through the sky. Seven of these moving stars, or planets, were known to the ancients, and only two—if we except the many much smaller bodies known as asteroids—at any rate only two *major* planets, have been discovered in historic times. These are Uranus, discovered by Herschel in 1781, and Neptune, discovered independently by Adams and by Leverrier in 1846.

The discovery of Neptune forms an interesting page in the history of astronomy on account of the fact that its existence was demonstrated and its position calculated mathematically long before it was found in the telescope. Adams and Leverrier, working independently, calculated the size and distance of a planet necessary to produce the variations in the movements of Uranus which had been observed by many workers. When the calculations had been completed and the position of the planet determined, the figures enabled Galle of Berlin to find it the first night he looked for it. Neptune swings around its obrit once each one hundred and sixty-five years, so that it will be some years yet before it will again be in the position where it was first seen.

Mercury, Venus, the Earth, Mars, Jupiter, Saturn, Uranus, and Neptune, then, constitute the major planets. There has been much talk of still others out beyond Neptune. Many eminent astronomers not only regard this as possible, but even as probable. Dr. W. H. Pickering, from calculations on disturbances in the motion of the outer planets and the comets, has announced his belief in the existence of three outer planets, and, as this is written (February, 1929), is making a systematic search for one of them, which, according to his calculations, should be in a position favorable for photography at this time.

In addition to the major planets, there are many smaller bodies of planetary nature varying from five-hundred miles or more to only a few miles in diameter. More than one thousand of these are known, and from ten to twenty more are being added to the list each year. None of them are of much astronomical importance. One, Eros, is of value in calculating the distance from the earth to the sun—a distance which astronomers use as a sort of yardstick in expressing astronomical distances.

The minor planets can be distinguished from stars only by their motion. In the days before photography came to the assistance of the astronomer, the minor planets could be discovered only by laborious search. To pick out the one body in motion among a thousand others, otherwise similar in appearance, was like looking for the proverbial needle in a haystack. First of all, it was necessary to make an accurate map of a given portion of the sky—a lengthy task now accomplished more quickly, easily, and accurately by photography. Having accurately mapped a given portion of the sky, the problem resolved itself into one of constant watch for the appearance of some object not shown on the map. Often such bodies when they appear turn out to be variable stars which have increased in brightness since the map was made. But finally one might, after many nights of constant vigil, discover a new body which, after all, would turn out to be a planet.

Nowadays, thanks to photography, the problem is much simpler. To discover "new" planets is no difficulty at all—the principal difficulty is in determining whether they may be designated as "new" or are simply old ones which have been picked up again. The astronomer on the search for new planets, *i.e.*, minor planets, of course, now needs only to expose a plate, or preferably two in duplicate, for an hour or two on some selected portion of the sky, guiding the telescope carefully all the while, so that the stars are recorded on the developed plate as small round dots, and then carefully examine the developed plate for a short line representing a luminous body which has moved during the exposure. Careful guiding of the telescope on the principal stars removes the influence of the earth's motion and causes the stars to remain in the same position on the plate. The minor planets, however, are in motion; hence they register on the plate, not as a small round dot, but as a more or less elongated line. They can thus be picked out at once from the thousands of stars which have recorded themselves on the plate.

This makes the problem a fairly simple one, and minor planets can now be "discovered" more rapidly than they can be identified. Before it can be identified as a new planet, and not simply one of the thousand or more already in the catalog, its orbit must be determined. To calculate an orbit requires at least three, and sometimes four, accurate determinations of the position of the body at different intervals. These the astronomer secures from plates made at intervals of a week or more. Here it is that many of the minor planets which are photographed are lost. It may be impossible to find the planet after the interval; weather-conditions may interrupt photography, or the orbit calculated from the position of the planet on the three plates may be hopeless. In that case the planet recorded on all three plates is probably not the same. However, when the orbit has been worked out, it may turn out to be that of a minor planet already known and catalogued. In such a case the astronomer may console himself with the thought that, thanks to photography, his work has been accomplished with far less expenditure of time and labor than if he had been compelled to work in the old way.

## Kiné-Photomicrographs of the Shrinking and Swelling of Wood

TIME-LAPSE kiné-photomicrography has been used by the United States Forest Products Laboratory in

studying the effect of a new process for the seasoning of lumber. Ordinarily, several months are required for the proper seasoning of lumber; but by the new process the same result may be reached in nine days. To investigate the effect of this process on the lumber, kiné-photomicrographs were made at ten-minute intervals throughout the nine-day period. When projected at the rate of sixteen pictures per second, the entire nine days' process of seasoning could be observed in eighty-one seconds. Many industrial and natural phenomena are now being dealt with in this way.

Another very interesting example of the application of photomicrography to wood-technology is the use of time-lapse micro-motion pictures for the investigation of the shrinking and swelling of wood. Physicists have long known in a general way that the phenomena of shrinking and swelling always accompany changes in the moisture content of the wood. In order to investigate the subject more thoroughly, at the Forest Products Laboratory at Madison, Wis., a piece of red oak was saturated with water and placed on the stage of the microscope which was attached to a motion-picture camera controlled electrically, so that it made a single exposure each 2½ minutes. As the block of wood was only one-inch square and only about a quarter of an inch thick, it dried rapidly and was practically dry in eighteen hours. When the film is run through the projector at the usual rate of sixteen exposures per second, the action is accelerated 2,400 times. The film shows the pores of the wood at first saturated with water, then this evaporates by degrees and shrinkage begins. As the moisture leaves the walls of the cells of the wood, these shrink and the cells draw closer and closer together. The film also shows how the cracks which often occur in seasoning wood have their origin. The exposed surface naturally dries faster than the inner portions of the wood, and the difference in the rate of drying in the two sections results in varying degrees of shrinkage, which sets up a tension that will, if sufficiently great, cause the wood to split and crack. Such studies have been made at the Forest Products Laboratory to investigate the harm from rapid drying, poor circulation in drying kilns, rate of drying for various woods, and the like.

There are many other applications of photomicrography in the investigation of forest-products. The effect of various methods by which trees are chipped, for the production of turpentine and resin, on the structure of the wood and the relation of this to yield, has been investigated by microscopic studies of wood-sections from the chipped trees. The effect of burning over of forest on the structure of the wood formed that year has likewise been investigated microscopically. Studies of the penetration of glues into wood, of the suitability of woods for various purposes, particularly paper-pulp, and of the action of molds on wood, are among other subjects in wood-technology in which photomicrography is being extensively employed.

## The X-ray in Modern Dentistry

MODERN dentistry, as well as surgery, owes much to the X-ray, and now an X-ray installation is as necessary in the office of the practising dentist as in the clinic or hospital. The dentist employs the X-ray for the location of cavities, tumors, and abcesses, fractured roots, pyorrhea pockets, and to determine the efficiency of fillings, root-treatment, and after extraction to determine if root-fragments are left. The X-ray is well adapted to dental requirements, as dental structures differ sufficiently in absorption to show up well in the photographs. Metallic fillings show up on the negative as white masses, root-fillings as more or less dense lines. The enamel and dentine are next in density, and the roots show up plainly as dark channels in the dentine.

There are two methods of dental radiography, known as intra-oral and extra-oral. In the first, small films are used within the mouth, opposite the teeth to be photographed; in the latter case, the plate or film is brought as close to the desired area as possible, but outside the mouth. By far the majority of dental X-ray work is intra-oral, *i.e.*, small films are used within the mouth, the X-ray tube being focused so that the X-rays pass through the cheek and the teeth to the small piece of film which is held in place against the teeth by the tongue of the patient. In intra-oral work it is impossible to photograph more than two or three teeth at a time, and these all on the same side; because if more were to be included, the arch of the mouth and the slant of the upper and lower teeth would cause the X-rays to strike the film at an angle, resulting in a distorted image.

The X-ray photograph is far superior to any other means of examination for locating the presence of cavities, failures in fillings, and the like. Dr. Howard Raper in *Radiology* (September, 1925) relates two cases which strikingly illustrate the validity of this statement and likewise serve to explain why much dental work is unsatisfactory. An X-ray examination of the mouth of a young lady was made, the photographs disclosing one large cavity, two medium-sized cavities, two very small cavities, one failure of imperfect filling, and one filling encroaching on the gums—seven finds in all, which required attention. As an experiment, the patient was then sent to ten recognised and established dentists, each of whom made an examination by other methods. Of the ten, two found two of the cavities, six found one cavity, and two found none! None of the ten noticed the failure of the filling or the filling encroachment on the gums. In another similar experiment, of ten findings by X-ray examination, a practising dentist of ability forced to rely on other methods could find only one! The old advice "See your dentist twice a year" is now being replaced, so far as the leaders in the dental profession are concerned, with "Have an X-ray examination twice a year". Preventive dentistry is concerned with the preservation of the pulp of the tooth so as to prevent toothache, the decay of the tooth, and the spread of the disease to other parts of the body. Toothache occurs when disease reaches and attacks the pulp of the tooth; it is Nature's warning that something is wrong. What begins with toothache may end in the heart, kidney, or other vital organ. Hence, any cavity in process of formation must be filled as soon as possible and before the pulp is destroyed. But as small cavities are very difficult to locate by any other means of examination except the X-ray, a periodical X-ray examination, each six or twelve months, enables even the smallest cavity to be found and filled before it has had a chance to develop and become dangerous.

## Telephoning Sound-Pictures

A MOVIETONE recording of three words "Is that so?" was transmitted by telephone to a recording apparatus in New York and incorporated in a picture running in one of the theaters, without any of the audience being aware of any difference in the recording.

# THE PICTORIAL EDUCATOR

ARTHUR L. MARBLE

*Communications intended for the editor of this department should be addressed to him, at Utah Agricultural College, College Hill, Logan, Utah.*

## Making an Educative Film

THE Roosevelt High School of Seattle, Wash., should be congratulated on the successful production of an educative film, known as "What Price Folly?" Near vacation-time last year the Health Committee of Roosevelt High wished to voice a warning to the many students who would flock to seaside resorts, disregarding health laws. But the Committee could find no film that would convey the desired information, and so resolved to produce one that would carry a health-message in story-telling form. To this idea the high school responded whole-heartedly. Students volunteered to do the acting, faculty members agreed to prepare the scenario and do the directing and filming. The instructor of physical education contributed a "location" at his summer-camp on an island across Puget Sound. All preliminary arrangements were made a few weeks before vacation. Then one day, a party of students and faculty chartered a boat and crossed the Sound to the island, where practically all of the scenes were made before 4 P.M. of the same day.

The story picturises consequences of health-rule violation. Among the characters are a girl who hikes in high-heeled pumps, swimmers who go to bathe too soon after eating, a boy who knows nothing about handling a boat, a young man who picks poison-ivy by mistake, another who carelessly drinks impure water, and a number of others, all of whom provide genuine entertainment. The completed film was shown to the student body of Roosevelt High, who received it with great enthusiasm.

It is hoped that this successful enterprise will serve as an inspiration for similar attempts by other groups during the coming vacation-season. What an admirable summer-camp activity! Even college summer schools might film educative movies in a regular dramatic or kinematographic course, or as an extra-curricular activity. There is no dearth of subject-matter that may, with a little ingenuity, be whipped into suitable plot-material.

## Are They True?

SUCH deceptions as spurious manuscripts, antiques, and paintings have long kept us on our guard; but now a new cause for eternal vigilance comes in the form of pictorial frauds. An editorial in the *Desert News* (Salt Lake City) last winter, describing the splendid array of news-photographs of snow-scenes, tells of a picture with many aliases. I quote from it as follows: ". . . Among yesterday's exchanges were four papers published in as many different States, yet presenting exactly the same snow-blockade picture that was located in four different parts of the country—one as far east as Pennsylvania, another as far west as Minnesota, and the other two in between. The same old snowplow appears in each picture, with the same towering snow-banks on either side of the highway, and even the same illustrious personnel—the only variation being the accompanying few lines of descriptive matter telling where the battle with the drifts was being waged.

"Now, such similarity is more than coincidental, it is ominous and savors of deception somewhere. Finally, the picture looks remarkably as though its original were made, not on a highway far to the east and north, on this or the other side of the Mississippi, but on a perfectly good Utah road which was cleared in a few hours, though not before its condition was perpetuated in picture."

After hearing the colorful record of the above-mentioned snow-photograph, one might be also led to wonder if the snow were really made of $H_2O$. To the Pictorial Educator the moral of the story is this: Make sure that the pictures you use come from authentic sources.

## How to Get Motion-Picture Supplies

CHURCH and school officials desirous of finding ways and means to obtain motion-picture equipment may find food for thought in a few suggestions offered by the National Child Welfare Association, 70 Fifth Avenue, New York, in "A Guide to the Study, Sources, and Materials of Educational Motion-Pictures". Here they are:

### HOW TO SECURE MOTION-PICTURE EQUIPMENT

Make a straight loan from your banker. You can sell season-tickets at $1 each, covering six or eight entertainments, two or three times a year. This will give you sufficient funds to own full equipment, while paying your bank in small regular payments.

Schools can co-operate with the church in the purchase of equipment. Have the church pay one-half the cost and use it on alternate days.

The School Boards often pay the initial cost of the equipment and the children maintain the cost of the educational and entertainments film by giving an entertainment once or twice a month.

Alternate with another town. Get another superintendent or minister in a near-by town who is interested in visual education. His aid can help you purchase the equipment.

Co-operate with the local representative of the Farm Bureau. The Bureau will welcome the opportunity of using some of the valuable films distributed free by the United States Department of Agriculture.

An individual can purchase the projector outright and get his funds and the original purchase price back by giving entertainments and educational programs to the school and church.

Parent-Teachers' organisation or Ladies' Aid take hold of the proposition and create the interest needed for this community enterprise. The funds can be raised by selling season-tickets. This makes visual education a community affair and quickens the interest in school and community life.

Get ten men public-spirited enough to advance $25 each. This pays for the equipment, and these men can be reimbursed at the rate of so much per week. The funds will be derived from the entertainments by collection or admissions.

CHRIST IN THE OLIVE GARDEN WITH THE CHILDREN
CECIL DE MILLE'S "THE KING OF KINGS"

Secure the backing of your patrons through the issuance of loan certificates. The value of each certificate may be one dollar. Secure loan through the school committee. Have certificates signed by president of the Student's Entertainment Committee and the principal. Repay your patrons at the earliest possible date.

### "The King of Kings"

EVEN those who oppose "The King of Kings" on religious principles agree that it is a powerful portrayal of social conditions in a certain little Eastern country some 1930 years since.

But among the believers of the story are not a few who feel purified, uplifted, and strengthened spiritually by the experience. I know that people who make it a policy never to attend movies on the Sabbath broke the rule for the "King of Kings" without a twinge of conscience.

### Pictures as Talk-Outlines

A NEW aspect of the usefulness of pictures was brought to my attention by an official of the B. S. A. who had made many pictures of Scout activities, to use them later in illustrated lectures. "My pictures," he said, "make an excellent outline for speeches." In other words, he was making pictures the feature of his lectures. and the words were quite subsidiary.

Those who heard Dr. Roy Chapman Andrews, leader of the Third Asiatic Expedition, give his lectures last winter know that his slides and motion-pictures unmistakably served as an outline of his spoken message. Indeed, on one occasion when the motion-picture projector refused to work, Dr. Andrews calmly and silently waited for another projector to be set up and the picture-outline again flashed on the screen.

I have often thought that a splendid way to teach public speaking to timid students of any age would be to encourage them to plan and deliver illustrated lectures. Any speaker of experience will tell you a person is less inclined to "stage fright" when giving an illustrated lecture than when he is entirely unaided. Although I am aware that pictures used in such a manner are considered by some as a kind of crutch, yet it is undeniable that pictures are a tremendous aid in lending the speaker self-assurance. Appropriate illustrations share the attention of the audience, relieving the inexperienced from the terrible thought that all eyes are "glued on" him.

In young school children there is a strong natural tendency or desire for expression, particularly of narrative. But the infantile mind soon forgets minute details. He can tell a story with ease provided someone reminds him of minor pivotal points which really form the framework of the tale.

Imagine how much faster a group of children might advance in oral composition and story-telling skill if they were aided by still-pictures or film-slides. As an instance of the narratives available in film-slide form, those of the Society for Visual Education, Inc., are representative of the best. This organisation issues an illustrated primary reading set consisting of captioned drawings which give a complete story. There are thirteen different sets, containing from thirty-one to sixty-three individual pictures. Among the stories are "Rumpelstiltskin", "Sleeping Beauty", "The Three Bears", and "The Adventures of a Brownie".

# LONDON LETTER

CARINE AND WILL CADBY

THE enlarged and most important photographic exhibition, showing the disfigurement of the countryside, has been held at the headquarters of the Royal Institute of British Architects in Conduit Street. Mr. MacDonald, the leader of the ever-growing Labor Party, conducted the opening ceremony. There has since been much active propaganda work, and Mrs. Neville Chamberlain and Lord Crawford gave a reception during the exhibition; and, at the annual meeting of the Council for the Preservation of Rural England, Dr. Vaughan Cornish lectured on "The Preservation and Enjoyment of the Countryside".

Our readers may remember that we referred to this subject in a recent letter. The present exhibition is the outcome and enlargement of the shows held in several towns in the autumn, and includes most of the photographs of disfiguring advertisements and signs then shown. The growing horror of the enamel sign is vividly demonstrated, and the actual localities of these monstrosities are given. A good point is made by views of garages smothered with these disfiguring objects contrasted with decent-looking and inoffensive petrol stations on the Kingston by-pass.

Attention has been particularly concentrated on this new peril. Enamel signs are said to be multiplying at a great pace. Some villages have as many as sixty or seventy, often obscuring and defacing old and interesting houses. So serious has the matter become that the possibilities of legislation have been contemplated. Another interesting section deals with the United States, and demonstrates the similarity between the problems of the two countries, only those of the States must be on a vast scale because of the size of the country.

The exhibition will eventually be shown at several big provincial centers. A smaller one is at present touring in Kent and Sussex, under the direction of Mr. Goulbourne Lovell; and a smaller one still is to penetrate to Women's Institutes and similar organisations all over the country.

The results of the propaganda which these movements represent have quickly appeared, and the Council for the Preservation of Rural England has been overwhelmed with requests for assistance and suggestions for further work. If photographers took up this work all over the country, it would surely have a salutary effect on those who are responsible for the disfigurements. Fancy the moral effect of the sight of cameras deliberately pointed at ugly enamel signs, filling-stations, and so on; and, worse still, for the perpetrators, the thought that these evidences of their vandalism would eventually appear in exhibitions, a salutary warning to others—how not to do it!

There is in this country a fund for the Preservation of Ancient Cottages, and Mr. Ramsey MacDonald lately presided over the first annual general meeting of the subscribers. The Labor leader, whose heart is very much in this movement, in his speech described so well the sensations produced in most of us at the sight of some of these venerable, but lowly, human habitations that have survived for centuries, often in a wonderful state of preservation, that we are impelled to quote him.

He said that "while they were all apt to measure progress by figures about this and that, none of those measures of progress really touched the heart and soul of things. Unless they kept standards of good taste in matters which related to spiritual progress, they would be lacking in reality. What they found in their various pilgrimages in search of happiness was that so many of their modern dwelling-places were dead from their birth. They never lived and were not of those things that came to meet them half-way with welcoming, encircling arms. As they entered the doors, they got no inspiration, no happiness. In the old cottages they found a kind of companionship, co-operation, and happiness. They must not allow the home-spirit of their ancestors to get away altogether, and be left with the dead bricks, which served no purpose except affording a shelter".

When one looks at some of these old cottages, each one different and individual, grown into its surroundings, and as much a part of the landscape as the trees and the hills, one reflects that the life of the peasants of long ago may have been, probably was, strenuous and hard, with long hours of work, but surely preferable to that of some of their descendants who exist, especially in mining districts, in rows of brick boxes, with a local kinema as their sole recreation.

In our younger days, if anyone deliberately elected to settle in Dorset, they would have to consider themselves as living out of the world, and a beautiful Nature would have to compensate them for losing the interests of the town. One could not in those days have things both ways. However, it seems that, with modern conditions, one can. Automobiles overcome distance, and friends have demonstrated that the journey from London is not too long to spend a day with us.

We have even been visited by travelers from big photographic firms—unprofitable calls for them, we fear, but interesting for us to be brought closely in touch with fresh developments in the photographic trade world. Last week a representative from Messrs. Wellington and Ward appeared up our little brick-path. His trump-card was the Wellington Spectrum Plate, a panchromatic plate of the highest attainable perfection. Our readers, no doubt, are conversant with the many advantages of panchromatic plates and we need not enlarge on them. But what interested us was the way makers today particularly recommend desensitisation, and Wellington and Ward's little book on the Spectrum plate gives full directions.

We remember many years ago, in Switzerland, coming across an enthusaistic photographer who mystified us by saying he was desensitising, but not developing, his plates. It was in the early days of panchromatics, and our first introduction to such mysteries, and we viewed with wonder the packing away of these undeveloped exposures. Another point that the makers stress is the possibility of enhanced contrast by means of filters of the same color as that of the portion of the subject required to be contrasted. This is no doubt a useful arrangement, at times, but one, we think, that has frequently been carried too far in landscape, where, to get a striking effect, a blue sky has been rendered almost like a storm-cloud.

# HERE, THERE AND EVERYWHERE

**To ensure publication, announcements and reports should be sent in not later than the 5th of the preceding month.**

## Q. R. S. and DeVry Corporation Merge Interests

In line with the trend of modern business is the merger of two of the strongest concerns in the amateur motion-picture field, Q. R. S. and the DeVry Corporation. This brings into combination the unusual financial resources of Q. R. S. with the outstanding manufacturing ability of the DeVry Corporation in this particular line.

Q. R. S. has achieved its wonderful financial success in a somewhat different though closely related field, and has only lately entered the motion-picture industry; so that especially fortunate is its consolidation with the DeVry Corporation, which, during the last fifteen years, has occupied a dominating position in the manufacture of portable motion-picture cameras and projectors, both in this country and abroad.

The DeVry Corporation, as organised and developed by H. A. DeVry, is well known for its vision, ingenuity, and the ability of its personnel. It produced the first successful portable motion-picture projector, and has since kept not only abreast of the improvements in that line but has consistently led the field in many important respects.

The amalgamation will enable Q. R. S. to transfer all of its motion-picture activities to the DeVry factory, under the active management of H. A. DeVry and his experienced associates. The new financial resources now placed at the disposal of the motion-picture end of the business enables the completion within the year of plans which are regarded as years ahead of the achievements thus far recorded in this field.

The new company will now face the market with the most extensive line of motion-picture apparatus ever offered the trade by one organisation. It will include the whole range of motion-picture machinery, from the least expensive movie camera, retailing for $39.50, to the highest priced combination talking-movie outfits for home and business.

## Dr. Rudolph's Seventieth Birthday

On November 14, Dr. Rudolph celebrated his seventieth birthday and was the recipient of congratulatory messages from all over the world.

Born November 14, 1858, in Kla, Thüringen, he studied in München, Leipzig, and Jena, and in 1884 was awarded the degree of Doctor of Philosophy. He taught higher mathematics at the University for a short time and then became associated with Professor Abbe, who, at that time, was connected with the firm of Carl Zeiss in Jena and whose research was largely responsible for improving the quality of optical glasses. Following this, Dr. Rudolph spent several years in the Microscopical Department, and, in 1890, invented the first Anastigmat lenses. Until he was pensioned, he was the head of the Photographic Department at the Jena works. Aside from the Protar and Anastigmat F/6.8 sets in 1891, he brought out in 1895 the Double and Protar sets working at F/6.3, in 1897 the Planar and Amorphoten, in 1900 the Unar, and in 1902 the celebrated Tessar, which has become one of the world's standards.

Because of overwork, brought on by long hours in the laboratory, his health broke down and he was compelled, in 1910, to retire to the country to regain some of his spent strength. However, his brain was too active to remain in idleness for any length of time, and the years between 1910 and 1918 were really the most fruitful of his career.

In 1918, after years of study, he invented and patented the first Anastigmatic Sphero-Achromats, which he termed Plasmats. His object was twofold: first, to construct a faster convertible lens than was hitherto considered possible, and, second, fuller correction for the primary colors of the spectrum which, because of their fuller color-correction, he termed Sphero-Achromatic. Their construction makes possible the focusing on the same plane of the blue and yellow rays.

The firm of Carl Zeiss of Jena made the first tests; but, because of previous license-arrangements, could not manufacture these lenses. Hugo Meyer & Co. of Goerlitz had taken over, under license-agreement with Dr. Rudolph, the Plasmat patents, and had further agreed to take over all his future developments in the years to come.

Dr. Rudolph moved his laboratory to Gros-Biesnitz near Goerlitz in order to be near the works of Hugo Meyer & Co. In 1922, Dr. Rudolph announced the Kino Plasmat F/2; in 1924, the Markro-Plasmat F/3—free of spherical zones—which is a perfect Sphero-Achromat; and, in 1926, he electrified the industry by his announcement of the first Kino-Plasmat, working at the hitherto considered impossible speed of F/1.5. This is a worthy achievement for this celebrated physicist, answering, as it does, the insistent call of the motion-picture industry for speed, and it is conclusive evidence of the high correction of his entire Plasmat series.

In 1924 he also patented the three-color photo-apparatus which freed high-speed photography from the objectionable parallex and which also seems very satisfactory for motion-picture work.

In spite of his threescore years and ten, this pioneer is still active in his laboratory every day; and, judging by his erect bearing and tireless energy, one may well expect almost anything from his remarkable brain.

## The "Waltar" Lens

Here's a new wrinkle for the owners of convertible anastigmats. Remove one element of your anastigmat lens and replace it, temporarily of course, with an element which makes it a soft-focus lens of similar focal length and aperture. When you again desire anastigmat-quality, restore the original element and your old lens is as good as ever.

Necessity brought forth this invention. I lost half of my Protar lens and tried to buy an element which would match the remaining one. I found a very good set of Protars at a very reasonable price, but the price was more than I cared to invest at that time.

Finally I saw Walter Wolfe, of Pinkham & Smith Company, Boston, Mass., and an honorary member of our club, and told him my troubles. He suggested that I have him make a new half for my lens. He

didn't offer any guarantee as to what the new lens would do, but said it would do something. I took a chance, although it's not much of a chance when he does the work. The new lens is a beauty. It has great depth of focus. In fact, one friend exclaimed that with it objects would not get out of focus. It is just as fast as my old lens, and it draws very prettily, giving a nice combination of the qualities of the anastigmat and of the soft-focus lens.

Of course I have no longer a real anastigmat, but I pass the word along to those who have, and who would like to have at a small cost an extra soft-focus lens to use with it.

A. C. SHERMAN, JR., in *Highlights.*

### The Scottish Federation Blue Book

THIS handy little vest-pocket yearbook, edited by John Macdonald, 27 Aberfeldy Street, Dennistoun, Glasgow, E-1, Scotland, is always welcome and is of especial interest and value to all amateur and professional photographers who are in Scotland or who may be traveling there. It is published by the Scottish Photographic Federation and is a very helpful photographic guidebook and directory, as well as source of technical information. This little book renders a true service.

### The Briggs "Mother's Day" Advertising Campaign

WE have received three neat and attractive window-display cards and a window streamer from the Z. T. Briggs Photo Supply Company, Kansas City, Mo. Several years ago, Mr. Briggs conceived the idea of making "Mother's Day" of greater importance photographically and otherwise. He therefore planned and conducted an appropriate advertising campaign to educate the public and to help professional photographers increase their business. His efforts have been rewarded with success, and his campaign this year will doubtless produce greater results than any previous year. These cards and streamer are supplied to photographers without charge as part of Briggs Service. We suggest that those of our readers who wish to receive the benefit of this publicity campaign communicate with Mr. Briggs without delay.

### Notice to Violators of Salon Rules

THE attention of the Associated Camera Clubs of America has been brought to the fact that, in some instances, pictures are being submitted to the salons by one person under different names. As the forwarding of an entry under a fictitious name is a deliberate violation of the spirit of salon rules and of every sense of fair play, the Board of Directors of the Associated Camera Clubs of America has decided to take definite action in regard to this matter, as follows:

"The responsibility for observing the published rules of salons and contests rests with each individual contributor; for, obviously, committees cannot check hundreds of entries from all parts of the world to make sure that rules are enforced. The act of submitting pictures under more than one name in order to increase one's chance at prizes or salon-honors is so clearly a violation of justice and fair play that anyone stooping to the practice should be forever barred from competition. The Associated Camera Clubs of America will publish to its members the names of any pictorialists known to resort to practices which are, in the judgment of its directors, dishonorable, and will recommend that such persons be excluded from exhibitions."

Anyone having definite knowledge of the willful violation of salon-rules by any individual, or of any other dishonest practices in connection therewith, is requested to submit the proof in regard to such dishonest acts to the secretary of the Associated Camera Clubs of America, in order that action may be taken regarding it. All active member organisations connected with the Associated Camera Clubs of America are requested to co-operate in the enforcement of the above by bringing the matter to the attention of their members, and by reporting to the secretary any violations which come to their notice, together with the proof.

### Interesting Facts about the Q. R. S. DeVry Corporation

WE have received the following notes which we pass on to our readers, as we know that they will make interesting reading:

"One of the most interesting and significant bits of news in recent years is that concerning the acquiring of the DeVry interests by the Q. R. S. Company of Chicago. It is believed by everyone concerned that the Q. R. S. DeVry combination of interests represents a new activity and life in the field of amateur movie business that spells a quick and sound growth of the entire industry.

"The Q. R. S. Company, for nearly a third of a century, has been acknowledged to be one of the most forward-looking manufacturers and aggressive marketing organisations in American business. When—recognising a field—Q. R. S. entered the player-roll industry, experts regarded the chances of success as very poor. But within a few years, Q. R. S. controlled over eighty per cent. of the total volume of the country in this line. Foreseeing the decline of the player-piano and a consequent limitation of further opportunity, they entered new fields, such as the Neon Tubing sign business. Already—in less than two years—they are outstanding figures in this field. Believing that an opportunity existed in the 'home movie' camera, Q. R. S. broke into the business with cameras and projectors, thoroughly practical, yet at prices little short of revolutionary. Just for good measure, they produced a 'still' outfit that upsets all existing standards of quality and performance cost.

"Convinced, from the wonderful reception of these goods, that this field offers as yet undreamed of possibilities, they decided to enter it in earnest; and, to facilitate the process, they looked about for the best available talent to expand the Q. R. S. camera-lines in a manner conducive to wide expansion of existing markets. The result was the acquiring of the DeVry Corporation, for fifteen years a dominating factor in the manufacture of motion-picture cameras and projectors. Its apparatus is used by Wilkins and Byrd, every studio in Hollywood, and by over ninety per cent. of the news-reel movie makers and hundreds of world figures, as well as by amateurs who demand unusual performance and reliability. H. A. DeVry, president, and his entire organisation, factories, patents, and new developments, including the Ciné-Tone—a new 'home-talkie movie'—are now combining with Q. R. S. under the name Q. R. S. DeVry Corporation.

"Within a short time, the Q. R. S. DeVry combination will enter the market with the most startling line of amateur motion-picture apparatus ever offered the trade under one mark. The basic policy throughout will be to give the consumer greater value for his money than the same dollars can command elsewhere. Beginning with projectors and cameras from around thirty dollars—thoroughly satisfactory and reliable apparatus—

the line will extend up to the finest apparatus money has ever bought. New and novel items, including the home talkie-movie—the Ciné-Tone—will be present. The public will, for the first time, be offered a real—a complete—line. And the same aggressiveness, and marketing, and advertising, and resale that has put Q. R. S. where it is today, will be behind the Q. R. S. DeVry Camera offerings.

"Mr. T. M. Pletcher, president of Q. R. S., makes this significant statement: 'I believe the amateur movie field offers the same opportunity today that radio offered four years ago. That's what we are shooting at.' That statement is well worth giving thought and credence to, in the opinion of those who know."

## Vitacolor at the New York Institute of Photography

MOTION-PICTURE photographers all over the country are deeply interested in the latest invention in the field of natural-color motion-pictures—Max B. DuPont's Vitacolor. Scientists and motion-picture engineers who have been privileged to see demonstrations of the new process have stated it to be the first system of natural-color motion-picture photography to give color-reproduction which is practically faultless. Naturally, motion-picture photographers are eager to see these results for themselves.

The first public demonstration of Vitacolor to be held in New York was given in the studios of the New York Institute of Photography, 10 West 33d Street, New York City, for the benefit of the students of the Institute. Mr. Will H. Howse, the manager of the Vitacolor Sales Corporation of Los Angeles, was in personal charge of the demonstration, and he is certainly to be congratulated on the interesting program he provided.

Although the New York Institute keeps its instruction abreast of the latest developments in motion-picture and still photography, and provides demonstrations of recent inventions and developments, the students present at the Vitacolor demonstration were astonished at the results achieved by this new method. Undoubtedly this will remain an outstanding example in the series of demonstrations to be given throughout the year in the studios of the New York Institute of Photography.

## Why They Trade

"How much did you tell me you'd allow on this Speed Graphic? The shutter's working perfect, there's hardly a scratch on it. . . ."

"Never mind, I know all about that camera. You got it in trade from Harry Simard for a Premo, didn't you? Simard got it from me, he probably told you. It's Bill Pillsbury's old Graphic. It seems to me I told you forty dollars toward a new Trona. Maybe a little better if you still like the new Silar. You were looking at that last . . ."

You can readily guess the shop. Feigenbaum's Camera Exchange on Bromfield Street, Boston, Mass. Of course.

In a comparatively short time the trade was made and "Abe" Feigenbaum returned to pick up the threads of the interview.

"Why do they change cameras so often?" he mused, repeating our question as he turned it over in his mind. "I've often asked myself that same question. The answer to it would reveal my own reason for fifteen years in the business. I used to spend all my money on cameras and accessories until I had accumulated so much that opening a store was both the logical and necessary sequence. I haven't got over the habit yet, nor do I want to; for it is not given to everyone to combine his business with his hobby.

"Camerists are divided into two classes, from my observation of thousands of them: those who make pictures and those who don't. Some men regard their camera as an instrument in their pleasure, but an indirect instrument, as it were. Others find their greatest pleasure in the camera itself and only indirectly in its product.

"The first trade but seldom, and then only to replace a worn-out box. But the second class find a fascination in frequent trading. They cannot help it; for their quest is for the ideal camera, which has not yet been made. But biding the arrival of that ideal, they are happy in repeating the cycle from Graflex to Graphic, to view to vestpocket, and the others, back to Graflex again.

"Automobilists do not trade in last year's model because it has outlived its usefulness, but rather because they crave for the latest and best. So it is with your camera 'bug'. He sees a camera as a beautiful instrument of precision. His scientific mind is interested in its every gadget. He will fondle it like a child does a toy. Sometimes, too, he may make a picture with it, though there are some of the fraternity who keep their cameras in a glass case for admiration only. One of my customers has at least twenty in his personal museum at home.

"The camera bug's trading activities are limited only by his purse. A Cambridge millionaire's one hundred trades in six months represents the record in my experience, yet every one of his fellow bugs would emulate him if pocketbook permitted.

"Then there are the camera lovers who trade only in their fancy. Unable to buy even a single camera of their choice, perhaps, they find not a little satisfaction in handling the cameras of others more fortunate. There are men who visit me once, twice, or oftener every week, ask prices, yet never buy. But what a thrill they get in browsing around! And if there happens to be someone here to talk shop with them in my own busy moments, their joy knows no bounds.

"Camerists must necessarily be very moral men, for they are so easily amused, a clergyman remarked to the 'gang' one day. He was right, too, for your true camera bug is so concentrated on his latest trade or his next trade that his mind is closed to most other suggestions.

"Then there are my friends the camera-testers, as I have named them. With unvarying regularity every Saturday finds them in the shop to ask quotations on this or that camera. May they try it over the week-end? Oh yes, they may try it, I assure them, for I sympathise with them sincerely. Besides, they afford an opportunity to check up on the condition of new stock. They love cameras as they love few things else. If their purse permitted, they would have a copy of every camera made.

"Camerists are never too busy to talk shop, I find. There is hardly one of the regulars who can get by the door without running up for a sniff of the atmosphere. It seems to revivify them. Frequently a stranger to our shores will introduce himself as having been advised by so-and-so, perhaps Turner or Fraprie or one of our other inveterate globe trotters in perhaps some out-of-the-way corner of England or France, not to fail to visit Feigenbaum's when in Boston.

"Cameritis—if that's what one might call this insatiable urge for new photographic equipment—knows no lines of race, creed, or color."

*Highlights.*

## Walter G. Wolfe Speaks at Boston Signal Post

MUCH to our regret, we were unable to attend the meeting of the Boston Signal Post of the American Signal Corps Association which was held at the Engineers' Club, April 5. As a member of this Post through our commission in the United States Signal Corps Reserve, and knowing Mr. Wolfe of the Pinkham & Smith Company, Boston, we felt an especial interest in this meeting. In fact, to Mr. Wolfe we owe a debt of gratitude for imparting to us much of the optical information which we are using today. Mr. Wolfe's talk related to lenses and to a consideration of light waves. Furthermore, he exhibited a motion-picture film which demonstrated the simpler principles of Einstein's Theory of Relativity.

Another speaker at this meeting was Lieutenant Colonel J. H. Van Horn, Chief Signal Officer, First Corps Area, with whom we are personally acquainted and who is virtually our Commanding Officer.

## Newark Camera Club

AT the annual meeting of the Newark Camera Club, Inc., on Monday evening, April 8, Frank J. Hall was elected president, Charles J. Barkhorn vice-president, and William L. Woodburn and Julius F. Graether were re-elected secretary and treasurer, respectively, for the ensuing twelve months.

Edward Browaski, Louis F. Bucher, and William H. Goulden were elected to the Board of Trustees for three years, with Fred Hahn, Jr., and Harrie V. Schieren as alternates.

W. L. WOODBURN, *Secretary.*

## Agricultural and Mechanical College of Texas

A NUMBER of our readers who have been very much interested in our department, "The Month in Applied Photography", conducted by C. B. Neblette, A.R.P.S., have been somewhat at a loss to know what the "A. & M." in the college name signified. For the benefit of these readers and others, we have obtained information to the effect that the correct name of the institution in which Mr. Neblette is head of the Division of Photography is the Agricultural and Mechanical College of Texas.

From the same source we learn that the enrollment in this college in September, 1928, was 2,732 students. The college is virtually a military school, inasmuch as the students are organised, trained, study, and live under military discipline. A number of United States Army officers and enlisted men are detailed for duty at this college. It is interesting to note that out of the total of 2,732 students, all but fifty are members of the Reserve Officers Training Corps Unit. All the branches of military training are given at the college, including aviation. Most of the Company and regimental officers, including the Colonel who commands the entire corps, are composed of selected cadets. In the World War, 2,300 A. & M. men saw service and fifty-two made the supreme sacrifice. A splendid 110-piece band is one of the features of this college, which is now in its fifty-second year of educational service.

From this brief survey it should be apparent that Mr. Neblette and his Division of Photography have plenty of material to work with, especially as we understand that he is charged with the responsibility of making the still and motion-picture records of the college life and activities. We believe that our readers will feel greater interest in Mr. Neblette's department as a result of knowing something of the educational institution with which he is associated.

## P. A. of A. Convention at Buffalo, New York

PRACTICALLY all of the traveling men covering the territory East of Buffalo are reporting greater interest in our Convention than ever before; for there is every indication that we are going to have a record-breaking crowd. The change in the date of the Convention to the week of May 20 has helped materially, as photographers all over the country are reporting a greater interest and greater possibilities for Mother's Day than ever before.

The program will be one of the strongest that our Association has ever enjoyed. This year it will have an exceptionally large number of demonstrations, which always are of interest to the photographer.

### PROGRAM FEATURES

CONRAD KREKELER, Gothenburg, Neb., "Profits in Photography for the Small Studio".—Mr. Krekeler is proving daily that the photographer can be successful financially, no matter where his studio is located, in the small country town or in the city suburb.

GUY N. REID, Fort Worth, Tex., "A Demonstration in Color".—Guy Reid has proved that colored miniatures and photographs are a most profitable side line for the average photographic studio.

H. I. WILLIAMS, New York City, N.Y., "The Effect of the Modern Movement on Photography".—The modernistic or futuristic movement in art seems to be turning the art world upside down.

URQUHART WILCOX, Buffalo, N.Y., "Composition and the Photographer".—Every photograph, portrait, commercial, or pictorial, no matter for what purpose it is made, must conform to the principles of good composition if it is to be successful.

LOUIS DWORSHAK, Duluth, Minn.—Mr. Dworshak, located in a somewhat out-of-the-way corner of the United States, has made a national reputation for his photographs of men.

Mrs. W. BURDEN STAGE and WALTER SCOTT SHINN, New York City, "A Sales Demonstration".—New business, or more business from old customers, are subjects of intense interest to every photographer.

WILL H. TOWLES, Washington, D.C., "A Demonstration in Lighting".—All photographers in this country know "Bill" Towles. He is known as being a successful teacher. He has the happy faculty of demonstrating the points he is making in his demonstrations in such a simple manner that every onlooker can grasp them and put them into practice when he gets home.

EUGENE HUTCHINSON, Chicago, Ill., "The Old Masters of Portraiture and What They Mean to the Modern Photographer".—The principles of lighting and composition used by the old masters of portrait-painting are equally applicable for the modern photographer.

CHARLES P. RICE, Montreal, Quebec, "Profits in Cost-Systems for the Portrait Studio".—The Rice Studio in Montreal is known as one of the largest and most successful studios in Canada and its success can largely be ascribed to the cost system that it uses.

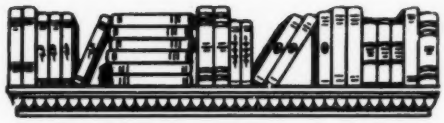
### PICTURE EXHIBIT

Vice-President D. D. Spellman reports that more interest is being taken in the Picture Exhibit than ever before.

Vice-Chairman W. E. Dobbs reports that the commercial clubs are lining up and that the competition for the Abel Cup, which was won by Chicago last year, will be more interesting than ever.

On account of the postponement of the date of the Convention, the pictures can be received as late as May 10.

L. C. VINSON, *General Secretary.*



# BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices. Send for our list of approved books.*

THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC, 1929. Edited by George E. Brown, F.I.C., Hon. F.R.P.S. 799 Pages and 63 photogravure illustrations. Price, paper, $1.00; cloth, $1.50. Boston: American Photographic Publishing Company.

The arrival of the "British Almanac" is usually the accepted signal to give up whatever else one is doing and retire to a quiet corner with a pipe or a cigar and browse through nearly eight hundred pages of photographic lore. The text, illustrations, and advertisements cannot fail to hold the attention and to give information. Many of the leading pictorialists of the world are represented in the illustrations, which are beautifully reproduced. This year the editor writes on the subject "Photography and the Criminal". The matter of photographing finger-prints and detection of criminals by means of the camera, with other data, is presented in detail. The other feature article is devoted to "Action Pictures" by T. L. J. Bentley, B.Sc., who gives much valuable information with regard to making pictures of objects and persons in rapid motion. The "Epitome of Progress", formulæ, tables, and miscellaneous information are as interesting as ever. Altogether, a very enjoyable photographic evening may be spent with the "B. J." Almanac.

PICTURESQUE OLD FRANCE, by Herbert B. Turner. 333 Pages and 33 half-tone illustrations. Price, cloth, $4.00. Boston: Little, Brown and Company.

It is rather unusual for a reviewer of a book to know the author well and to have seen something of the painstaking effort which went into the making of a volume which could very easily and justly be called a labor of love. However, the writer of these lines had the pleasure of knowing Herbert B. Turner and noting quite a little about the preparation of this book. Very naturally, then, this reviewer feels a personal interest in trying to make clear to the reader the merits of "Picturesque Old France". However, it should be stated that the book is considered on its merits and not in an effort to promote its popularity—that will take care of itself.

Perhaps the keynote of the whole volume is best sounded in Mr. Turner's opening sentence in the Introduction. He says: "I love France. I love the out-of-the-way places of France—the medieval towns, the quaint villages, the picturesque spots, and all that goes to make up that friendly, smiling land of good cheer". From several talks with Mr. Turner we know that this is true. The next step for him was to spread the good news to others and to offer them the same opportunities which he had enjoyed. We believe that he has succeeded in making his message clear, and in a literary and pictorial style all his own.

In taking his readers through the quaint old towns of France, Mr. Turner went on the assumption that they would follow his footsteps precisely as he described his own travels. That is, with due attention to description, historical data and anecdote, he took great pains to be very accurate with regard to routes, hotels, inns, and other important facts for the traveler who wished to follow the same route. By so doing he has presented a picture of old France which is different, interesting, and thoroughly practical. In short, he seems to say to the reader: "I've had a splendid time. Let me tell you all about it so that you, too, can go and enjoy yourself."

Amateur and professional photographers will find much of artistic and technical value in the book. Mr. Turner is a pictorial photographer of international reputation. When he suggests a good subject or says that good subjects are not to be found in such and such a town, he is very likely to be right. It is not often that a travel book is written by such a practical and experienced photographer.

The illustrations are varied, striking, and beautiful. From the thousands of negatives which Mr. Turner made during his many trips to France, he has selected those which, to him, portray best the scenes which he loves. In the Appendix is reprinted Mr. Turner's excellent article, "French Towns of Photographic Interest", which appeared in the November, 1927, issue of PHOTO-ERA MAGAZINE. This has been brought up-to-date, especially with regard to photographic data. Altogether, the typography, illustrations, style, and appeal of the book virtually ensure its immediate popularity.

LUCI ED OMBRE: Annual of Italian Pictorial Photography, 1928. 16 Pages and 52 Half-tone Illustrations. Price, paper, $2.50. Boston: American Photographic Publishing Company.

Again we welcome the Annual of Italian Pictorial Photography, 1928, which is widely known as "Luci ed Ombre". There are many splendid figure studies, landscapes, marines, and portraits which reflect the best in current Italian pictorial photography. It is through a thoughtful study of the leading photographic annuals that amateur and professional photographers are enabled to improve their own work and to appreciate that of others. We are confident that our readers will profit by viewing the illustrations in this beautifully printed annual. The more we keep in touch with the photographic work which is being done in other countries, the greater will be our appreciation of all pictures.

## Summer Photographic Reading

IT is not unreasonable to assume that those of our readers who have bought new automobiles this spring will take the necessary time to read carefully the instruction book which came with the car. In fact, they realise that if they do not, they may ruin some part of the car or endanger those who ride in it. Although the element of physical danger may not be so great in the case of a new camera, yet is it not possible to ruin an expensive equipment through careless handling? If it is important to master the instructions for the new car, is it not likewise important to master the instructions covering the new camera? Furthermore, is it not good judgment to read something about composition, light and shade, and other artistic principles which add so much to the pleasure of picture-making? It is time well spent to acquire a few good photographic textbooks and to read them thoroughly. What is more, there are a number of exceedingly interesting books now available which are very far from being a task to read. We suggest that you look them up or ask us to help you.

# THE AMATEUR KINEMATOGRAPHER

HERBERT C. McKAY, A.R.P.S.
*Dean New York Institute of Photography*

## Education *de Luxe*

It is significant that many of our greatest inventions serve purposes which are primarily devoted to our amusement! Radio has been used to some extent in educational ways, and the motion-picture also; but the experiment illustrated here shows how we may make extension education so attractive, so fascinating, that we shall be unable to resist it.

The microscope plays one of the most important parts played by any instrument in science. However, it is so delicate in its manipulation that the fullest benefits can be secured only after some years of experience. For this reason, students rarely see more than a badly defined smudge. Even if they see perfectly the field indicated, they are at a loss to interpret the appearance of the subject.

To meet this obstacle, "demonstration eyepieces" are used. These consist of an extension tube which the instructor uses to view the field. The student uses the usual eyepiece. In this system, very naturally the instructor tires of repetition, and the student must make way for other members of the class. The system is not at all satisfactory.

By the new method, the student is at liberty to examine the field, selected by an expert, showing just exactly what should be seen. The examination may be made repeatedly, and, best of all, the student receives the lecture in the comfort and privacy of his or her own home. Briefly, while the motion-picture projector shows the object magnified some ten thousand diameters, the phonograph reproduces the lecture, the film and record being synchronised electrically.

It is to be understood that this work is as yet purely experimental and has not been made commercially available; but no doubt it will later be made so.

In the experimental work, the equipment used consisted of a Q. R. S. camera operated by the projection-motor, a Zeiss research microscope with full apochromatic optical equipment and its accompanying arc lamp, a Zeiss beam-splitter, an Ediphone, a homemade microphone, and homemade amplifier.

The subject used for this work consisted of a drop of water from a stagnant pool.

The microscope was set up as for visual observation, with all adjustments carefully attended to. The beam-splitter was then placed over the eyepiece. This beam-splitter consists of a cemented prism in a suitable mount. This prism deflects about ninety-nine per cent. of the light into the camera and allows only about one per cent. to pass on into the eye of the observer. The purpose served is to enable the operator to constantly watch the field of view while the actual exposure is taking place. Incidentally, it is no more than just to acknowledge the debt of the writer to the truly wonderful Zeiss equipment which made this experiment successful.

The camera was placed upon a support so that the lens was directly opposite the lateral opening in the beam-splitter tube. Naturally, the camera-lens was removed, as the microscope itself serves as the lens system. The beam-splitter is provided with adjustments whereby it is possible to focus the microscope with full accuracy without having to check the focus in the film-plane itself.

It has been stated that the camera was used with the electric drive unit rather than with the spring motor. This was done for a very important reason. The electric supply which led to this motor also led to the Ediphone motor. Thus both motors, fed from the same source of supply, would be subject to the same current-fluctuations and provide the best synchronisation of sound and pictures possible, without positive synchronisation such as is provided by mechanical junctions of the various pieces of apparatus used.

*Examining a slide preparatory to making a photomicro-talking motion-picture film.*

HERBERT C. MC KAY

In front of the table a homemade carbon-button type of microphone was mounted in a ring stand similar to those used in broadcasting studios. This microphone led to a home-assembled amplifier. For the benefit of radio fans, it is only necessary to state that this was an ordinary photograph amplifier circuit. From the amplifier the current led to a loud-speaker unit mounted upon the recorder of the Ediphone.

There is always one point of discussion among experimenters in acoustics. It is recognised that vibrating diaphragms leave something to be desired in the way of quality. The hook-up referred to, in

*Complete equipment used in making photomicrographic talking films for instructional purposes*

HERBERT C. MC KAY

which the electric impulse is transmitted to the diaphragm of the unit, this diaphragm in turn affecting the diaphragm of the recorder and thence the engraving point, is not the best. However, the results were unexpectedly good. It may be added that the first attempt was marred by interference pick-up from the motors; but this was silenced in the usual manner, well known to radio-fans. We are now making a direct-drive recorder in which the drive-rod of the speaker unit carries the engraving point upon its end, doing away with the two intermediate diaphragms.

*The last step. Projecting the photomicrographic film while listening to the recorded explanation as given by the reproducer.*

HERBERT C. MC KAY

With the hook-up complete, a suitable field was found, one which abounded with life. The switch was thrown, starting both motors simultaneously. Each field disclosed was explained, and each new feature disclosed explained. As field after field was brought into view with the aid of the mechanical stage, it was difficult to make speech keep pace with the film. However, this was done, and the full one hundred feet of film exposed, together with the record of the speech.

In such work, it is often necessary to hunt for some time in order to find just the field desired. In such cases it would be foolish to allow the camera to run. In making this film, both camera and recorder were stopped perhaps ten or twelve times; but since both were operating from the same electric main, synchronisation was not interfered with in the least. When finished, the film was tried out by us with a degree of satisfaction which had not been anticipated.

In projection, the same synchronisation system was used; that is, the projection was done with the camera unit and motor used in making the exposure. Naturally enough, that means projection at the exact taking-speed. Moreover, the speech-reproducer was run by the motor used in recording. By thus duplicating taking-conditions, synchronisation was approached to a very satisfactory degree.

With the ear-pieces of the reproducer in place, the terminals, supported by plates of hard rubber sealed by sponge rubber pads resting against the head, all extraneous noise is excluded and attention given to the speech. In this manner the full benefit of the

10,000-diameter image and explanatory talk are enjoyed to the fullest extent.

Following this, an electric pick-up was attached to the reproducer and the speech amplified and reproduced by a loud speaker, making the demonstration available to a full audience.

The experiment may be easily duplicated by anyone, particularly by those who play with radio—and no doubt the system can be used in many ways other than that described. At least, the possibilities in the field of extension education are unmistakable, and apparently unlimited.

### Photomicrography with the DeVry

Most of us are familiar with the wonderful films made through a microscope, says Mr. Herbert C. McKay, A.R.P.S., but such subjects are thought to be beyond the reach of the average amateur. Now that the DeVry is gaining such favor in schools, it may interest many microscope workers to know that they can make very good microscopic movies with their DeVry camera.

Four things are necessary to engage in this fascinating work: the DeVry, a good microscope, the camera-prism, and a satisfactory light-source such as an arc light.

The prism, which is known under the name "microphote", is the secret of obtaining fine results with usual equipment. This is a tube which sets upon the upper part of the microscope tube. It contains a prism which reflects about 99 per cent. of the light at right angles, and allows the remaining one per cent. to pass through to the eye of the observer. Thus it is possible to watch the progress of the motion of the subject at the time it is being photographed. Moreover, this unit enables the camera to be used in the normal horizontal position, while the microscope remains in the usual vertical one.

In the set-up, the camera is supported upon a stand. The microphote is set in place and adjusted for focus. The lens is removed from the camera, as no camera lens whatever is used! The microscope supplies the necessary optical system. The microscope is focused while watching the image in the camera through the aperture in the door. The microphote focus is adjusted to correspond. Thereafter the worker knows that the foci of camera and microphote coincide and the door aperture may be closed.

Using a 10x objective, a 4 amp. micro arc lamp with aspheric condenser, an aplanat micro condenser of N. A. 1.4, fully exposed negatives were secured upon panchromatic film at full automatic camera speed.

The stunt is recommended to every DeVry owner who also owns a microscope. The microphote is inexpensive, while, if necessary, light can be obtained by removing the lamphouse from a DeVry sixteen-millimeter projector and using it in place of the arc.

*DeVry Movie News.*

[We clipped this item without saying anything about it to Mr. McKay—A.H.B.]

### The Automatic Dissolve

Amateurs have copied many things from the professional; but until the present, they have had to do without one of the most valuable and versatile effects of the professional—the automatic dissolve. Recently there has appeared, upon the market, an attachable automatic dissolve which has stood up under the most severe tests. This little device opens up a whole new field to the amateur, and one which he will not be long in investigating.

Briefly, the automatic dissolve is a device which gradually cuts down the exposure throughout a predetermined footage of film. This effects the familiar "fade-in" and "fade-out", known to every theater-goer. As these fades can be quite successfully imitated by several means, this is really the least valuable characteristic of the automatic dissolve.

The automatic dissolve gives a perfectly uniform fade, and by its use every fade in a film can be made at the same rate of speed, which is seldom accomplished by any makeshift method. The speed may be regulated from one to eight seconds. Thus a four-second fade is used throughout the run of a film, and the last scene ends with an eight-second fade. This gives the film quite a professional aspect.

The dissolve opens up a vast field of trick work, also, most of which is based upon the "lap dissolve". In order to fully realise the effect, let us take a typical scene as an example.

We have a group seated about a campfire. Suddenly there appears a faint image of a ghost. This image gathers substance, until it is as solid as the others of the group. The figure walks about and acts with the rest of the group, talking with them and, in fact, making one of the group. At last we have the finale, wherein this figure again loses substance and vanishes.

This effect is accomplished in the following manner: The group of men are seated about the fire and indulge in limited action. The cameraman calls out "Fade", and the members of the group hold their positions. The cameraman then fades-out, *i.e.*, operates the dissolve from full light to full dark. The "ghost" then takes his place in the group and the cameraman fades-in, *i.e.*, operates the dissolve from dark to light. The action then goes on until the end of the scene, when the operation is repeated, with the exception that the ghost leaves the set between the fades.

It is evident that the two fades will compensate each other; and, as every object except the ghost is included in both fades, there will be no indication of the fade except as pertains to the figure of the ghost itself.

You who have had professional experience are no doubt wondering how such a slip ever got into these columns! The fact is that, while the professional camera is reversed between the fades to *expose* one fade over the other, present-day sixteen-millimeter cameras are not provided with a reverse; so the film obtained bears a fade-out followed by a fade-in. The film must be cut between the fades and actually "lapped", one end over the other. In the case of reversal film, it must be projected in this manner, which is not easy; but with negative and positive films, the negative is lapped and printed in this condition, giving us the smoothly dissolving scenes upon the single thickness of the positive.

Full scenes may be dissolved in this manner, all kinds of miraculous changes effected, and many mysterious shots made which could not be otherwise easily made.

### Q. R. S., The DeVry Automatic and Other Things

Most of you, my readers, are already familiar with the fact that the Q. R. S. Company merged the DeVry Corporation into their rapidly growing organisation. This is news which will be received enthusiastically by all amateurs. We are very glad to learn that Mr. Harry DeVry is remaining with the organisation, while the organisation of the Q. R. S. interests will enable expansion to proceed at a much more rapid pace. We shall expect great things of this merger—and no doubt the realisation will surpass our expectations.

However, this brings us back to a favorite topic among the thirty-five-millimeter enthusiasts—the

DeVry automatic. We shall all agree that it is a fine little box. In fact the writer has been using one for some three years now, and it has never balked or jammed. But this isn't an experience column; so we will get to work on the facts and problems involved.

Objections have been offered to the use of the term "automatic" in connection with this camera. It is true that all the spring-driven cameras now offered are fully automatic, from the taking on to the removal of the film from the camera. In the entire cycle of operations there is but a single adjustment left to the operator, and that is the proper setting of the lens-diaphragm to make the most effective use of the existing light-conditions. This is one step which must depend upon personal manipulation, because there are times, particularly in dramatic production, where an incorrect lens-stop is deliberately used for certain effects. However, it is evident that in any case it is vitally necessary for the kinematographer to *know* the correct setting.

Expert or beginner, the most that either can do is to estimate the correct exposure. As we have so often repeated in this department, dependence upon film-latitude is leaning upon a delusion. It must be evident that if the film-latitude is insufficient to record the actual range of contrast which exists in the original, there is insufficient latitude to compensate incorrect exposure.

There is but one answer, of course—use a good exposure-meter. It is significant that whereas the amateur of a few years ago openly ridiculed the use of any kind of exposure-meter, the amateur of today—the successful amateur particularly—regards the meter as being just as essential to his work as camera or lenses. In previous issues of this magazine we have reviewed several meters, and have described in detail the Dremophot and Cinophot. It is significant that the Dremophot is given unlimited recommendation by Bell & Howell for use with their Filmo cameras, while the Cinophot is widely advertised for use with the Ciné-Kodaks. The latter meter has received the recommendation of the Eastman Kodak Stores, Inc. When such companies recommend any instrument for use with their cameras, particularly when such instrument is really a deciding factor in the satisfaction which the customer will receive from the use of the camera, the quality of the meter would seem to be firmly established.

The question arises concerning the exposure of the DeVry Automatic camera when used with the Cinophot. The meter reads directly, giving exposures for 1/32 of one second for par speed motion-picture film, either negative or reversible. As the DeVry has an exposure interval of approximately 1/48 of one second, we would increase the indicated exposure by one-half "*f*" point to compensate the shorter exposure. On the contrary, most owners of the DeVry make use of *superspeed* film, which requires a reduction of one point in meter-reading, due to its greater sensitivity. If we are then to increase the reading by one-half point and then reduce it by one point, we arrive at a theoretical reduction of one-half point.

This leads us to the obvious conclusion that using the DeVry Automatic with *superspeed* film, we should read the Cinophot directly. For all practical purposes, the added half point will not detract from the result but will usually add to the quality of the film.

And then, there is that everlasting bugbear—distance! It is true that we cannot successfully make use of a two-inch, fixed-focus kiné lens, as the hyperfocal distance for the F/3.5, two-inch lens is forty feet; but we shall see definitely that twenty feet marks the point at which full shots merge into semi-close-ups. We then find that for average shots, at F/3.5, we set the focus at forty feet. Then everything from twenty feet distant to infinity will be in satisfactory focus. For nearer objects, if there is difficulty in estimating the distance, it may be paced, measured by tapeline, or a reliable distance-meter may be brought into play.

Although it is possible to set the focus at forty feet and thus obtain satisfactory focus in all planes from twenty feet to infinity, it does not follow that setting the lens at twenty feet will give us sharp focus from ten feet on. As the lens is set at closer distances, the depth of focus rapidly grows smaller, until, with real close close-ups, we find our depth of sharp focus is measured in inches. For close-ups, measure distance carefully. The closer the subject, the easier to measure, and the greater the necessity for careful measurement. For general open shots, hyperfocal infinity will be entirely satisfactory.

And in closing, any automatic camera can be operated quite successfully when held in the hands; yet it is significant that newsfilm companies warn their field men that unless a tripod is absolutely out of the question, it should be used. A light-weight tripod with panorama-and-tilt movements will add considerably to the enjoyment you will receive from the use of any camera. The old-fashioned, heavy tripods with crank-operated movements are no longer necessary; so that the habitual use of the tripod will not prove burdensome.

But this is getting far away from the Q. R. S. DeVry combination. This merging of interests so well and widely known cannot do otherwise than stimulate still further interest in amateur kinematography and react to the good of everyone interested in this field; both manufacturers and users, regardless of the make or type of camera involved. The field is large enough to welcome all available equipment, and we could not spare a single item. Eastman, Bell & Howell, Victor, Wollensak, Goerz, Zeiss, Meyer, Schneider, Cooke—how can we estimate the good these great firms have done? How can we ever appreciate the pleasure and profit they have made possible to us? As for the two firms which have recently become one, DeVry has been known since the first stirring of visual education. Q. R. S. is a younger entrant in the motion-picture field, but this firm has made phenomenal progress since it started and now the promise is of even greater activity.

Let us give a vote of thanks to the manufacturers who have made possible the infinite pleasure we receive from our equipment!

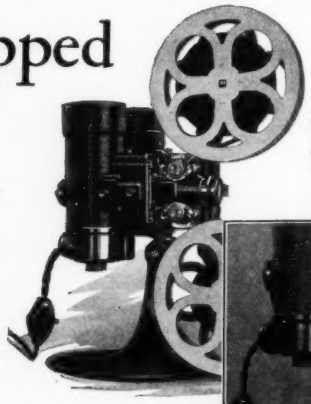


## A Motion-Picture Method of Making Rapid Geographical Surveys

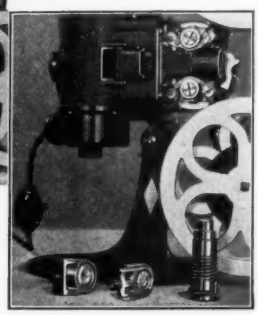
F. HAUSER in two papers in *Kinotechnik* (1928 *10* 409, 432) describes a method of making rapid geographical surveys, primarily for military purposes, using motion-picture recording. Instead of using the optical range-finder as a visual instrument and bringing the two images into coincidence, their displacement is recorded by the motion-picture camera, which at the same time records the scale-readings of the range-finder for the various degrees of displacement. A complete record is made by swinging the range-finder and attached camera in a complete circle. For measurement, the two pictures, one from the left- and the other from the right-end base of the range-finder, are projected simultaneously. A distance-parallax scale enables the distances to be calculated. Practically all this accomplishes is to enable the actual field work to be accomplished more quickly, as much of the work of measurement, which in the ordinary way is done in the field, is transferred to the projection-room.

# *Announcing* the Kodacolor-Equipped FILMO Projector

## *—setting a new standard for color-movie projection*



*Left: The New Kodacolor-equipped 57-G Filmo Projector as it appears when assembled ready for use.*



*Right: Close-up showing from left to right, 45-50 condenser, the auxiliary Kodacolor condenser and the new Kodacolor Projection lens assembly unit.*

May—with the first flush of summer color, brings to camera enthusiasts the urge to get out-of-doors and take pictures. This year, many will be making breathlessly life-like Filmo movies in full natural colors.

The Bell & Howell Kodacolor-equipped Filmo Projector—Design 57-G—establishes a new high standard for the showing of motion pictures in true-to-life colors. This machine is identical with the famous Filmo 250-watt, 5-ampere projector, except that it is equipped with a special, new, color corrected projection lens assembly unit, and a new auxiliary Kodacolor condenser built in between the regular 45-50 condenser and the lens. Also fully equipped for regular black and white projection.

Employing an entirely new lens formula and designed especially for the showing of Kodacolor—adaptable to Filmo cameras and projector under license from Eastman Kodak Company—this new 57-G Filmo Projector insures perfect color projection, complementing the superb results produced by the new *Special* F 1.8 Kodacolor Lens used on Filmo 70 and 75 Cameras.

***Duplicator for 1" F 3.5 lens for Filmo 70***

*This new accessory attaches to the regular 1-inch F 3.5 lens on the Filmo 70, making possible the photographing of objects in duplicate. It gives many amusing effects—bringing all the advantages of pre-Volstead days without violating the law. A subject is photographed singly until it reaches the center of the picture, then it becomes double. An example of Duplicator results is shown above.*

Bell & Howell Filmo amateur movie equipment is backed by the same manufacturing precision and tradition that, for over two decades, has characterized the professional Cinema cameras used in filming a majority of the pictures shown in "first-run" theaters.

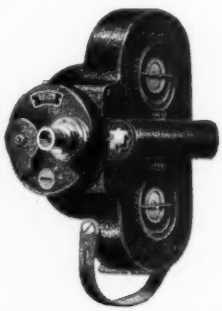
See your nearest Filmo dealer for a demonstration or write today for detailed information.

***Filmo 75***

*The pocket-size movie camera. Comes in Walnut Brown, Ebony Black and Silver Birch. Price with case $120.*

***Filmo 70***

*The finest of all personal movie cameras. Prices with case $180 and up. Models available for making s-l-o-w movies.*



# BELL & HOWELL

Filmo

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